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Por orden del Sr. DIRECTOR GENERAL DEL MATERIAL NAVAL, adjunto elevo copia de "Proceedings of the Conference on the Anglo-Argentine War of 1982 (Lessons of the South Atlantic War), por si resulta de interés para esa Comisión.

AGREGADOS:Lo mencionado en el texto.

FORTUNO PARERA IZAGUIRRE
CAPITAN DE NAVIO
JEFE

ALFREDO R. ROSITO
CAPITAN DE FRAGATA
JEFE
EN AUSENCIA SEÑOR JEFE

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Lessons of the South Atlantic War

Proceedings of the Conference on the Anglo-Argentine War of 1982.

A DECADE OF LEADERSHIP * 1972-1982 *

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Defense & Foreign Affairs Ltd.
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Telephone (202) 223-4934.
Telex (WUI) 64161 COPLEY.

Preface

On Friday, April 2, 1982, Argentine Marines landed on the Falkland Islands in the South Atlantic, and seized them on behalf of Argentina, renaming them the Malvinas, as they have been traditionally known by Argentinians. The gesture was a turning point in the more than 100 years of disagreement between Britain and Argentina over the sovereignty of the islands and their dependencies. Britain responded militarily to Argentina's take-over and, by June 14, 1982, the UK had forced Argentine forces on the islands to surrender.

The South Atlantic War was more than a sideshow in international strategic circles. It was the first naval conflict since World War II, and the first use of many new weapons systems. More than that, it was a conflict between two Western nations, using Western equipment. There were many lessons for the participating states, but also for the rest of the world.

International debate over the war, the techniques and the equipment used, was so keen in the weeks following the war's ending that Defense & Foreign Affairs publications decided to host a conference as quickly as possible to begin putting some of the lessons onto the table. There was a distinct danger that the euphoria of victory and the embarrassment of defeat would obscure the real activities of the war and the lessons of it. It was quite apparent that, given time, a considerable amount of information would come to the surface and could be considered in the reflection of history. But for most countries this approach was inadequate: the lessons had to be learned quickly, and the necessary changes incorporated into force structures and doctrine.

The result was a Conference attended by some 250 senior defense and political officials from 33 countries. The papers were presented by a distinguished group of experts, outlining as much of the war as was possible. Quite obviously, it was impossible to cover the war fully or deeply in two days. But the Conference brought out the first information and analysis on many aspects of the Conflict.

I would like to thank the participants — the speakers and the delegates — in the Conference. They contributed to a debate which has not been encouraged either in London, Buenos Aires or Washington. We can only hope that the debate will not stop until all who are interested have learned the lessons needed to ensure their country's security.

Gregory R. Copley,
Conference Chairman.
Publisher, Defense & Foreign Affairs,
Washington DC.
October 1982.

The Authors

Gregory R. Copley: *Conference Chairman, Conference on the Lessons of the South Atlantic War. Editor-in-Chief and Publisher of "Defense & Foreign Affairs" group of publications. Chairman, Defense & Foreign Affairs Ltd. Australian citizen. Author of several books on aviation and strategic issues. Has served as adviser to several governments at head-of-state and cabinet level, on strategic issues.*

Dr Stefan T. Possony: *Consultant and author on strategic, political and defense issues. Has spent 40 years in intelligence, including 18 as adviser to the US Air Force Assistant Chief-of-Staff/Intelligence. Associate Editor and co-founder, the "Defense & Foreign Affairs" group of publications. US citizen. Advisor on strategic and technology issues to a number of US Administrations at top level, and to a number of foreign governments. Until recently also Senior Fellow at the Hoover Institution on War, Revolution & Peace, at Stanford University, California.*

Air Vice Marshal Stewart Menaul, RAF (ret.): *Currently one of the most significant UK commentators on defence and strategic issues, and was heavily involved in current analysis on the Anglo-Argentine conflict this year. From 1965 to 1976, AVM Menaul was Director General of the Royal United Services Institute, in London. He is Vice-President of the Military Commentators Circle, is on the Governing Council of the Foreign Affairs Research Institute, in London, and is a member if the Institute for the Study of Conflict and the International Institute for Strategic Studies. He serves as a consultant to three US institutions. AMV Menaul is a specialist in nuclear weapons and nuclear strategy, and has taken part in 14 nuclear tests. He was a member of the RAF Valiant crew which dropped Britain's first nuclear weapon, in Australia. He has authored several books, including "Japan's Defence Policy", "SALT II, the Euro-Strategic Imbalance", "NATO in the Eighties, a War-Winning Strategy", "Changing Concepts of Nuclear War", and "Countdown: Britain's Strategic Nuclear Forces".*

John Fozard, OBE: *Divisional Marketing Director, British Aerospace, Kingston-Brough Division since 1978. Chief Designer, "Harrier" fighter, 1963-1978. Born in Yorkshire, UK, in 1928. After apprenticeship and degree courses in aeronautical engineering and design, he joined Hawker Aircraft in 1950, working under Sir Sydney Camm on new designs including the early Hawker V/STOL studies. Became head of project office in 1961. In 1963 appointed chief designer on the supersonic V/STOL fighter, the P-1154, and when this project was cancelled, he became Chief Designer, Harrier. His Harrier work included the RAF's single-and two-seat versions, the Navy's Sea Harrier, and the USMC's AV-8A and TAV-8A. Helped develop the Ski Ramp launch concept for Harriers.*

Major General Ken Perkins, CB, MBE, DFC: *Defence Adviser, British Aerospace Dynamics Group. Enlisted in the ranks of the British Army in 1944, he was commissioned into the Royal Artillery in 1946. His early service included aviation in the Korean War and Malayan Emergency, a spell in armour and command of the 1st Regiment, Royal Horse Artillery. On promotion to Major General in 1974, he was loaned to Sultan Qaboos of Oman, and commanded the Sultan of Oman's Armed Forces (SOAF) during the Dhofar War. He commanded Omani, British, Jordanian and Iranian ground, naval and air forces during this time. After the Dhofar War, he returned to the UK as Assistant Chief of the Defence Staff (Operations), after which he became Director of Military Assistance with responsibility for overseas programmes. He retired from the British Army in April 1982. Foreign decorations include the Hashemite Order of Independence, the Order of Oman, and the Selangor Distinguished Conduct Medal.*

General Sir Frank King, GCB, MBE: *Senior Military Adviser, Short Brothers Ltd., UK. General King's main military commands were: Parachute Company at Arnheim 1944; 2 Parachute Battalion (of Goose Green fame in the recent conflict) in the Middle East 1960-62; Mechanised Infantry Brigade Group in Germany in 1963-64; Director of Land/Air Warfare 1967-68; Royal Military College of Science 1969-71; Army Strategic Reserve 1971-72; Director of Operations Northern Ireland 1973-75; Commander of the Northern Army Group (NATO) and Commander-in-Chief of the British Army of the Rhine 1976-78. Also various staff appointments, including Kermit Roosevelt Lecturer 1977; Colonel Commandant of the Army Air Corps 1974-79. Retired in 1979 to join Short Brothers. He is a member of the Council of the Air League, and is a qualified helicopter pilot of some experience.*

Major Sir Patrick Wall, MC, VRD, RM (ret.), MP: *British Member of Parliament (Conservative). Patrick Henry Bligh Wall was born in 1916, and was commissioned into the Royal Marines in 1935, specialising in naval gunnery. Served aboard a variety of British capital ships and support craft, and with the US Navy on D-Day, and with the Royal Marine Commando. He attended the RN Staff College and the Joint Services Staff College. He was staff instructor at the School of Combined Operations 1946-58. Retired to devote his time to politics in 1950, but remained a member of the Royal Marine Reserve, where, as an experience parachutist, he commanded 47 Royal Marine Commando (in the RM Volunteer Reserve) until it was disbanded in 1956. Elected to Parliament in 1954. Has been chairman of a variety of Conservative Parliamentary Committees, was Vice-Chairman of the Defence Committee 1965-71, and Chairman of the Military Committee of the North Atlantic Assembly 1977-81. He is currently Vice-President of that Assembly. He has been a member of the Defence Committee of the Western European Union, and a member on the UK Parliamentary Select Committee on Defence. He is chairman of the Africa Committee of the Conservative Parliamentary Foreign Affairs Committee. Sir Patrick has also authored a number of books, articles and pamphlets on defence.*

Neville Trotter, MP: *British Member of Parliament, currently Secretary of the Conservative Parliamentary Industry Committee and the Chairman of the Shipping and Shipbuilding Committee. In the 1974-79 Parliament he was Secretary of the Conservative Parliamentary Aviation Committee. Since entering Parliament in 1974 has specialised in shipping, defence, trade, the aviation industry and foreign affairs. Mr Trotter has travelled extensively in Europe, North and South America, Africa, the Near and Far East and Eastern Europe. He spent some time with the Argentine Navy and Air Force in October 1980, during which time he visited most Argentine air bases and several Argentine Navy ships. He also during 1980 visited the Falklands as a guest of the Governor.*

Brig. Harry Hopkinson: *Military Marketing, Alvis Ltd., UK. Brig. Hopkinson joined the Royal Horse Guards (the Blues) in 1942 and saw operational service in Europe during World War II. Subsequently served in Germany (1945-52 and 1962-64) on armoured reconnaissance; in Cyprus during the emergency (1957-60) on the operations staff; in the Aden Emergency (1964-66) on the operations staff. He subsequently attended the Staff College in Quetta, Pakistan, and the NATO Defence College in Rome before becoming Commander of the Household Cavalry. His regiment, now the Blues and Royals, served in the Falklands campaign. He was Deputy Director of Military Assistance at the UK Ministry of Defence for Iran, Nigeria and the Middle East, and later served at NATO AFCENT HQ in Holland before retiring in 1978 to join Alvis. He has visited some 30 countries with Alvis on military marketing activities.*

Prof. Carlos Lopez: *Currently Trustees Distinguished Professor of Humanities, Menlo College, California. He is a member of the Chilean Academy of History, and has written several books on Latin American navies as well as more than 100 articles in English and Spanish on that subject. He was educated at the University of Chile, Santa Clara College, and University of California at Berkeley.*

Lt. Col. Robert Jarman (ret.): *Retired recently from the British Army after 31 years as an infantry officer in The Gloucestershire Regiment. Until April 1982, he had spent several years as head of the Marketing (Army) Section within the British Ministry of Defence Sales Organisation. He first saw service at age 19 in Korea, and later saw active service in many parts of the world, both with his regiment and as a Technical Staff Officer. He is now a Director of the defence consultancy firm, Developments, Scientific and Technical Ltd., in London, and a correspondent of the "Defense & Foreign Affairs" group of publications.*

David S. Harvey: *Editor and Vice-President, "Defense & Foreign Affairs" group of publications, Washington DC. Author of extensive number of articles and reports on strategic military and military-political issues. Joined "Defense & Foreign Affairs" in 1975. British subject. Educated at London University.*

Ronald W. Cain, Sr.: *General Partner, the Seaknife Partnership Ltd., a US corporation formed to exploit the patents and technology of the Seaknife naval hull concept. Also owner, Cain Security Systems, Inc., specialists in high-technology computerized electronic security. Mr Cain holds a degree in Business Administration from the University of Virginia, and has served in a variety of marketing and security functions for major US corporations. He served extensively in South-East Asia as a member of the Counterinsurgency Contingent with the US Armed Forces.*

Major General John M. Strawson, CB, OBE: *Senior Military Adviser, Westland PLC. Served in the 4th Hussars (Winston Churchill's regiment) during World War II in the Middle East and Italy. Since that war took part in various internal security campaigns, commanded his regiment (now the Queen's Royal Irish Hussars, of which he is Colonel), commanded an infantry brigade, and was finally Chief of Staff, United Kingdom Land Forces. After leaving the Army in 1976, he joined Westland Aircraft Ltd., working in the Middle East and Europe. He is the author of several books, including "The Battle For North Africa", and "Hitler as Military Commander". He collaborated with General Sir John Hackett and others in writing the best-selling "Third World War" and its sequel.*

Other Panelists: Several other panelists took part in discussion, but did not present formal papers. They were: Vice Admiral Frederick Turner, USN (ret.); Brig. Gen. Sam Cockerham, USA (ret.); Dr Ralph Gilby (DuPont); Air Vice Marshal Bird-Wilson, RAF (ret.), British Aerospace.

Cartel de Avenas

Lessons of the South Atlantic War

Proceedings of the Conference on the Anglo-Argentine War of 1982.

THE STRATEGIC OBJECTIVES OF ARGENTINA

by

Dr. Stefan T. Possony, Associate Editor
"Defense and Foreign Affairs"

On December 22, 1981, General Leopoldo Fortunato Galtieri, commander of the Argentinian Army, became President of Argentina. During January and February the Argentinians carried out military moves in the Beagle Channel, not far from Cape Horn. On March 19, 1982, an Argentine naval transport landed workmen, who may have been Marines in disguise, on South Georgia, 800 miles east-south-east of the Falklands. The "workers" promptly hoisted the Argentine flag and sung the Argentine anthem. On March 25, an Argentine Antarctic supply ship re-supplied the shore party, and the Argentine Foreign Minister declared that the party in South Georgia was on Argentine territory. Accordingly, they would be given full protection of the Argentine government. On April 2, Argentine land, sea, and air forces invaded the Falkland Islands, which are situated about 300 miles off the Argentine mainland.

Few analysts, if any, had assumed that Argentina would pursue an expansionist strategy, and that aggression could be put in motion within less than four months over an area extending to more than 35 latitudinal degrees.

Did General Galtieri conceive and prepare the undertaking within a few weeks? To be sure, Argentine preparations were little more than deficient and even rudimentary improvisations. The planners of Buenos Aires did not believe that Britain would defend its territory seriously, hence no real military effort was deemed to be necessary. Nevertheless, the preparations which were actually undertaken, must have been started before Galtieri ascended to the top post.

It is believed that the Falklands operations was approved unanimously by the 100-odd ranking military officers who elect the members of the Junta. This group fired General Roberto Eduardo Viola and replaced him with Galtieri, on the probably spurious ground that Viola was ailing. It is to be presumed that Viola, who was disliked by the extremist wing, opposed the military adventure, and that Galtieri was elected because as the officer who slew the Monteneros, he "looked" most impressive as the country's predestined triumpher. On April 10, 1982, the ex-leader of the Monteneros, being serious and not ironic, praised Galtieri for his fight against "British imperialism."

Galtieri was transformed into a triumvirate-in-one-single-person -- as army commander, as chairman of the Junta, and as president. The dream solution formulated by Ludendorff, and experimented with by Hitler and Stalin, was to be realized once again by Galtieri. Since the British were not expected to fight, a cheap victory seemed ensured.

* * *

It is important to see through the myth according to which Galtieri was the person chiefly or exclusively responsible for the Falkland aggression. If this myth were accepted, the illusion might arise that after his departure the danger to Falkland has been ended. Also, the myth must be rejected that Argentina and Britain have been enemies for a long time, and that Argentina was, or is, an "anti-imperialist" and anti-British force.

The truth is that relations between Britain and Argentina were predominantly excellent, and that Argentina owes much, perhaps most, of the development which it experienced, to Britain. The two countries mutually supplement one another, and the British presence in Buenos Aires remains strong. It is unlikely that there are truly intelligent Argentinians who value the possession of the Falklands higher than the continuous friendship with the United Kingdom. The most astounding aspect of "Galtieri's strategy" was that, while he claimed a strong personal attachment to the Malvinas, which is hard to believe, he went out of his way to alienate Britain, the U.S., and NATO, and rejoiced in the applause of Cuba and the USSR.

To sum up this portion of the argument: General Galtieri was maneuvered into power to implement a strategy whose roots go back for almost 40 years, and which was progressively active since 1970, although the terrorists imposed a long pause. Galtieri participated in the formulation of this strategy, for which the virtually non-violent seizure of Falkland was to serve as an accelerator. Instead of becoming a hero, Galtieri spoiled the undertaking through impulsiveness, lack of realism, and obstinacy, and above all, through his merely fundamental understanding of strategy.

* * *

Argentina claimed South Georgia first in 1927, but there was no visible intent behind this legal move. Nor did the claim have any basis, since Britain claimed the island since 1775 and annexed it during 1908.

The Argentinian "struggle" against "British imperialism" may be said to have begun with incidents on Deception Island, in the

South Shetland group, during 1943-44. This was interpreted as a move by pro-nazi elements in the Argeninian navy, presumably designed to gain control over Drake Passage. This undertaking was not followed up militarily but, in spite of the eclipse of the nazis, the South Sandwich Islands were claimed by Argentina in 1948. During 1952 Britain and Argentina "clashed" in Hope Bay, in the same area. There was no sequel, and Argentina desisted. Those incidents were related to various claims to areas in Antarctica, which we shall discuss later.

There was no clash about the Falklands during the 20th century.

This picture is confused but it suggests that Argentina has had an intent to expand, and that it took this intent seriously only in an intermittent fashion. This long range and opportunistic strategy has included the Falklands merely as one target among others.

As soon as it is estimated that Argentina has been pursuing an expansionist albeit occasional strategy, several Buenos Aires policies begin to lose their mystery.

* * *

Let us look at what actually did happen.

The Falkland fracas activated Venezuela which has not been secretive about its expansionist desires. Venezuela desires to acquire the oil of the Maracaibo basin which belongs to Colombia. It is also interested in the oil, bauxite, and uranium deposits of Guyana, and wants to annex about half of that country. This expansion is opposed by Trinidad and Brazil, and also by Cuba. Venezuela supported Argentina diplomatically. It is not clear, however, whether Argentina actually desires the enlargement of Venezuela. But if Argentina continues with a policy of expansionism, it will be interested in friendship with other countries which wish to change the status quo. For the time being, therefore, a de facto alliance should be assumed.

Argentina has maintained good relations with Peru which has a defensive problem with Ecuador. Quito wishes frontier adjustments to improve the communications of its oil fields with the Pacific, and via the Amazon riverine system with the Atlantic. By siding with Peru, Argentina opposes territorial change in favor of Ecuador, whose claim is not unjustified.

Argentina withdrew its military support to El Salvador, perhaps as a matter of priority. This withdrawal may also have been designed to improve relations with Cuba and to demonstrate disagreements with the U.S. As of early September 1982, the

relationship between Argentina and Salvador is obscure, and Argeninian participation in the continental defense against communist advances remains suspended.

As a byproduct of the conflict between Argentina and Britain, it is logical to expect that Argentina would support Guatemala to get hold of Belize. Nothing of the sort has transpired.

Thus, Argentina's strategy affecting Peru, Venezuela, and Central America may be assessed as a subsidiary strategy commanding merely a third-rank priority.

* * *

By contrast, a long-range and sustained strategy to destabilize Chile is discernible, first in the friendship with Peru which is hostile toward Chile, and second in the positive attitude toward Bolivia which, perhaps together with Peru, is eager to take the Chilean area north of Arica and thereby to establish national access to the sea.

In addition to this hoped-for amputation in the north, Argentina also is interested in southern Chile. Since 1970 the Argentinians have been conducting fairly frequent operations to sever from Chile the islands of Picton, Lennox, and Nueva, and to attach those to Argentina. This project has been pursued openly, and Papal arbitration was invoked, yet the purpose of Argentina remains unclarified. Oil may be involved, but oil transportation rather than oil deposits. If so, cooperation with Chile would be more urgent than a territorial dispute, however limited in scope. The three islands are the only Chilean possessions east of the 67th degree longitude, and they dominate the eastern exit of the Beagle Channel. This may sound important, but the Beagle Channel is insignificant now, and its future as a waterway connecting the Atlantic with the Pacific is too uncertain to warrant an argument.

However, the Beagle exit may become important for communications with Antarctica. Present arrangements include many difficulties, especially for Argentina whose Tierra del Fuego is cut off from the rest of the country.

Since the southern stretch of the Tierra del Fuego coast lacks natural anchorages and ports, the port of Ushaia located on the Beagle Channel, in the southwestern corner of Argentine Tierra del Fuego, is the main Argentinian base for access to the seas between Cape Horn and Antarctica. Ushaia's port is tied by road to the northern sections of the Argentine Fireland, as well as to two sea ports with moderate capacity. There also is an airfield, which is connected with the large air terminal of

Rio Gallegos, about 52 degrees N, 69 degrees W, slightly north of Magellan Strait.

Thus, for all practical purposes, Ushuaia is the Argentine bridgehead to Antarctica. The agitation about the islands which are situated on the way from Ushuaia to the sea suggests that Argentina wishes to have a transport connection with Antarctica which is under its full and sovereign control. This is the only rationalization which makes any sense.

Still, what is the hurry? Does Buenos Aires really believe Ushuaia could become far more useful if the three islands in the "isthmus" of the Beagle Channel were to be taken away from Chile and be incorporated into Argentina? Do they assume that possession of the islands would make it possible to keep secret Argentina's traffic with Antarctica? Such thinking is too implausible to be anything but a diversion or ruse.

It is remarkable that so far Argentina has given no signal that it wants to change the statute of the Strait of Magellan. This strait is uniquely a Chilean waterway, and makes Chile an Atlantic as well as a Pacific power, with Argentine even lacking convenient access. It may be hypothecated that Argentina has been pressing the issue of the three Beagle islands because it wants to change the regime of all waterways below the 52nd parallel, including Magellan, Beagle, and potential inter-connections, as well as Drake Passage which is an international sea route.

Thus, Argentina's protracted hostility toward Chile has been a task of second-rank priority, and may be directed at goals which are only incidentally linked to Chile.

What then has had top priority? Not the seizure of Falkland which was nothing more than a partial sub-strategy.

* * *

During the current century, Argentina, Chile, and Britain have announced claims on Antarctic territories. The British claim dates from 1908, that of Chile from 1940, and that of Argentina from 1942. These claims -- as well as the claims by additional states -- were not settled, but were explicitly left intact by the Antarctic Treaty of 1959, which is up for revision and possible cancellation in 1990.

As a visible element in their strategy, Argentina in 1974 proclaimed that the Antarctic territory it had been claiming, was upgraded into being an integral part of the Argentine national territory; that is, the South Pole was henceforth a point on the border of Argentina.

Thereupon, Chile regarded it as a necessity to make a corresponding move for its claims in Antarctica, and the South Pole also became a point on the border of Chile.

Both national territories are delineated by the 60th parallel in the north. The width of the Argentinian claim is 49 horizontal degrees, that of Chile 37 degrees.

As a result, the national territories of Argentina and Chile are overlapping: each "possesses" a territory with a width of 21 degrees which is also "possessed" by the other.

This is a situation which anywhere but in Antarctica would be a potent casus belli and which years ago would have been decided by military means. If a war about mutually conflicting national sovereignties had been postponed, for whatever reason, military conflict would have to be expected with certainty for the future.

In the area below the 60th parallel Britain possessed the South Orkney and the South Shetland Islands, and the Antarctic Peninsula as "Falkland Islands Dependencies." In 1962, i.e. preceding the Argentine move of 1974, those possessions, together with the sector of the Antarctic continent lying below the 60th parallel and between the longitudes of 20 degrees and 80 degrees west, together with islands below the 60th parallel, were constituted as the British Antarctic Territory.

It is unlikely that London regards this Territory as an integral part of the U.K., but the difference between the British and the Argentinian-Chilean construction remains to be clarified.

Meanwhile, the British claim covers 60 latitudinal degrees, and except for 5 degrees, overlaps either with Argentina or Chile, or both. South Georgia, South Sandwich Islands, Shag Rocks, and Clerke Rocks are British possessions north of the 60th parallel, as is Falkland, of course.

From a legal point of view those overlaps are frightening. In the pragmatic behavior of the affected states, however, exploration and scientific research were not impeded, militarization was more or less prevented, and various settlements of explorers "co-existed peacefully" in disregard of incompatible claims on sovereignty. It seems that such peace was, or is, possible only where the ice is in control, and where the "imperialism" which is practiced, is in the nature of "ice imperialism".

* * *

The center piece of these triple claims is the Antarctic Peninsula, with adjoining islands, situated roughly between 58 and 70 degrees longitude. The Drake Passage connects the Peninsula with Tierra del Fuego and the Beagle Channel, and more loosely with Falkland.

The Antarctic Peninsula is called O'Higgins Land by Chile, San Martin's Land by Argentina, Graham Land by Britain, and Palmer Peninsula by U.S. (According to some maps, Graham Land is the northern part of the peninsula, and Palmer Land the larger southern part.)

There are 14-15 "stations" on the Peninsula, at present six owned by Argentina, three by Chile, two by U.K., two by USSR, one by U.S., and possibly one by Poland. This area appears to be the most densely populated part of Antarctica, and accounts for more research stations than the rest of the icy continent which seems to hold only 11.

We now have the information which allows us to identify what the goals of the Argentine attack against the Falkland Islands really were. Evidently, more was at stake than a few square miles of rocky and largely infertile soil.

In the first place, Falkland and related British islands constitute the best approach to the Antarctic Peninsula, and thereby to what is at present the heartland of the icy continent. The Falkland approach is superior to the approaches Argentina has at its disposal. The Chilean approaches are not really inferior to the Falkland route, but improvements are necessary. There is no doubt that for members of NATO the Falklands are the most practical gateway to Antarctica, and for the surveillance and control of the Drake Passage connecting the Pacific with the Atlantic.

Second: Most of the waters involved carry sea ice, and most of the land surfaces are covered with ice and glaciers. On the one hand, the utilization of Antarctica requires ports and airfields, on the other neither may be available. Evidently a fleet of icebreakers is required, perhaps in the form of helicopter and V/STOL carriers. Even if the required technology did exist at present, the way to handle harsh weather "strategically" is to have and constantly use many alternatives. Thus, in order to begin the "development" of the Peninsula as an effective base area necessitates the utilization of ports and airfields which, geographically speaking, can be emplaced in the home territories of Chile and Argentina, as well as in the British Antarctic Territory and in the Falklands and their dependencies.

Third: The attack by Argentina was directed against Falkland and dependencies, and the Argentine insistence on sovereignty was aimed at acquiring the seas and lands of the British Antarctic Territory. The aggression was designed to become the heir to Britain as a South Atlantic and Antarctic power, and to achieve dominion over the sea and air approaches to the Antarctic Peninsula. In the same process -- if it had worked out -- Argentina might have been able to gain the upper hand over Chile.

In other words, the Falkland Islands were regarded as the focal point for the control of Northwest Antarctica. By seizing this focal point Argentina could also hope to master the sea link between Atlantic and Pacific.

This set of objectives -- Antarctic heartland, its access routes, and the Atlantic-Pacific connection -- denote the top priority goals of Argentine strategy.

* * *

Perhaps, even if Argentina had won, those gains would have been illusory. Nevertheless, if, as expected, Britain had not defended herself, Argentina could have greatly enhanced its powers at very little cost.

We might wonder what can really be done in the ice by a determined government? Surely, there are purely geographic assets: A location may be entirely infertile and unproductive, but it may be valuable as a factor of transportation and security. Do we know that Antarctica must remain unproductive? Perhaps the skeptical evaluations of Antarctica were unjustified; it is equally possible that the optimism which replaced them lacks merit. So far, after 20-odd years of moderately systematic exploration, only a small percentage of the ground was surveyed. Hence evaluations of Antarctica's potential are premature.

We do know that only five percent of ther land is "visible," i.e. free from permanent snow and ice. But those five percent in absolute numbers, total almost 300,000 square miles, and that is extensive real estate which is scheduled to be explored geologically but which has not yet been adequately surveyed. In addition, there must be large areas with limited snow-ice cover which might be manageable by conventional mining techniques.

Present costs of mineral extraction from below snow and ice are prohibitive, and they are compounded by the costs of human living and movements. Yet as soon as technologies are developed for the area -- as they are now being developed for hydrocarbon

mining in the arctic Beaufort Sea -- and as soon as an infrastructure comes into being, costs may be reduced drastically.

It also may be a mistake to consider costs as more or less uniform for all mining products. If the realities of the Arctic resemble those of the Antarctic, there should be much methane below the ice, and this might be extractable through drillings.

Whatever the details, the real development of Antarctica presupposes international cooperation, a lot of R&D, and large programs in applied technologies. The requirements are far beyond the present and probably the future capabilities of Argentina. But the combined resources of industrial powers and scientific institutions could effectively handle the problem.

At present 13 countries are active participants in the exploration effort, and Argentina is one of the most active. It should be mentioned in passing that between 1966 and 1981 the USSR has been maintaining seven bases, including several large ones, and plan to add still another. (Their allies Poland and East Germany also are busy in the area.) They deployed 1400 men and women, as compared with the U.S. which has in the Antarctic 300 scientists and 750 support people. The Soviets employ eight ships to serve their Antarctic colony logistically.

* * *

Antarctica is important for the earth sciences, e.g. ice, weather, earth magnetism, macro and micro climatology, oceanography, etc. The study of the ice age is a major contribution to the future of mankind, and the emergence of ice technology might increase our resource basis and protect us against climate deterioration.

Still more important, Antarctica is believed to be the key place for the alteration of the global climate. If this is true and climate modification is feasible at affordable costs, something like an "optimal climate," such as it existed between 4,000 and 2,000 BC, might be created, and perhaps it can be maintained indefinitely. This might be a pipedream, but more limited climatic improvements should be attainable from systematic cloud seeding in the Antarctic, possibly supplemented by parallel operations in the Arctic and Sub-Arctic.

With respect to more immediate utilizations, the fact is that interest in the Antarctic has been steadily increasing. During the past five years or so, traffic has been growing significantly, so that the continent no longer can be regarded as

"empty." Even tourism has been underway since 1958, mainly, pushed by the Argentine Naval Transport Command with visits to the Antarctic Peninsula. Since 1966 coastal waters of Antarctica were opened to tourism. The possibility exists for an all-weather jet airfield at Marble Point in McMurdo Sound combined with one or several hotels to support skiing and mountaineering. This would be outside the area claimed by Argentina, Chile, and Britain.

Reportedly, the Argentinians have run bi-weekly commercial flights from Rio Gallegos to Auckland, New Zealand, but the information may be premature until they finish the air terminal on Seymour Island which they are planning. Seymour is in Weddell Sea, close to the northern tip of the Antarctic Peninsula. In any event, there are at present five airfields in the Antarctic, of which three are located on the Peninsula. The Soviets are flying fairly regularly between Moscow and Molodezhnaya, one of their bases in Antarctic.

Progress might be accelerated through the utilization of ships for "colonization," in lieu of construction on the ground. The ships could be equipped with ice-breaking features, and they could be used for living quarters, power stations, production, and repair, and the establishment of beachheads.

* * *

Argentina is an important producer of food for the world market (grain, meat, and wine). It could strengthen its market position by adding sea foods, large quantities of which could be produced in Antarctic and adjoining waters. The Antarctic waters, which are characterized by a density of fish seven times greater than the waters to the north, could easily be the most valuable waters on the planet. In addition, all those waters carry large quantities of krill, which were growing to the extent that the whale population was declining (international whaling convention of 1967). Commercial exploitation of the krill has begun, on a small scale.

The available quantity of krill is estimated at 183-1350 million metric tons, but it may be as high as 5 billion tons. The annual production is believe to be 200-330 million tons. Most of the krill is in the Atlantic below 50th parallel, and around the Antarctic Peninsula. A lesser amount is in the Indian Ocean, and a low krill density is encountered in the southern reaches of the Pacific.

The by far greatest supply of krill occurs between the shores of southern Argentina and the meridian of Greenwich. Most of the krill is found in the open sea, but proximity should give

Argentina several advantages -- if the country were interested in this product.

Industrial fishing can be expected to grow, not just for food, but also for the production of fishmeal which is the best fertilizer and and excellent money-making world commodity. (The Peruvian who specialize in this product may want to cut into the Antarctic potential, and they have been considering staking a claim for Antarctic territory.) The Antarctic offers large quantities of guano which equally can be used as a high quality fertilizer. I ignore the whales and the seals which in the past were important for furs.

I connected Argentina's emphasis on sovereignty with their strategy. Their interest in this factor has been widely discounted as an old-fashioned <u>idee fixe</u>. However, if fishing were not combined with preservation and control, the resource would soo disappear. Also, if the catch is to be divided, hard cash is at stake. It may be difficult or impossible to find a principle of regulation which is superior to the rules of sovereignty. The same argument applies to the extraction of raw materials. It should therefore be anticipated that, as development is getting underway, the various territorial claims will have to be settled.

* * *

There are plenty of minerals in Antarctica, and some of the deposits may be large. As of now it is known that near the Pole, the continent has one of the world's most extensive coalfields containing anthracite and natural coke. This large field includes at least three sub-fields on the 73rd, the 80th and 85th parallels, and it is connected to the Trans-Antarctic Mountain chain between 170 E and 170 W longitude. To judge from pictures by the U.S. Geological Survey those mountains are not covered by glaciers. Whether the central position of the coal precludes commercial exploitation cannot be predicted, but the optimist may believe that this deposit may allow development at the geographic center.

The U.S. Geological Survey published in 1974 its Circular 705 which summarized the then knowledge of the <u>Mineral Resources of Antarctica</u>. Emphasizing that a great variety of resources has been found, but that, by and large, knowledge extends only to "occurences," the following materials were discovered at 70-odd locations: sand and gravel (important for construction), and marble; non-metallic minerals like asbestos, phosphate, and rare earths; and minerals like iron, chromium, copper, titanium, uranium and thorium, gold and silver, nickel, cobalt, platinum, manganese, tin, vanadium, molybdenum, tantalum, lithium, beryllium and columbium. Other sources additionally

suggested the presence of antimony, lead, and zinc. Ferro-manganese nodules were discovered on the bottom of the sea washing the Antarctic Peninsula and in the Amundsen Sea, at some 40 locations. Other analysts suggested that such modules also occur in the Scotia Seas.

Aside from coal and oil, energy may be obtained from geothermal sources. The Geological Survey also called attention to the fact that Antarctica is holding, albeit in the form of ice, some 90% of the globe's fresh water stores.

The Survey indicated that iron, together with magnetite, has been determined to exist in sizable concentrations. It also reported on the discovery of the Dufek Intrusion, in the Dufek Massif of the Pensacola Mountains. This Intrusion covers 13,000 square miles and has a thickness of 4 miles, of which 2.5 miles are exposed. Since the Intrusion undoubtedly is "mineral-rich," the Survey ascribed to Dufek a great economic potential. Two similar sites have been discovered in the Trans-Antarctic Mountains and in the Warren Range, respectively.

The Survey stressed the difficulties of discovery in Antarctica, but did not mention the modern potential of discovery by space satellites.

It concluded that the best chances of finding exploitable deposits probably exist in the Andean orogen, followed by the adjoining Ellsworth orogen. Those "orogens" are continuations of the Andes mountains in South America.

In other words, the area contested by Argentina, Chile, and Britain, according to this assessment, is the most promising of the entire continent. This finding (which may be in the nature of an interim report) unquestionably was known in Buenos Aires.

Since 1974, a team of 35 geologists, supported by helicopters, did extensive exploring in the Ellsworth Mountains, south of Palmer Land, and the Dufek Intrusion was found to be substantially larger than originally assumed. This intrusion is believed to be as large as, and similar to, the Bushveld Intrusion in South Africa. This may mean in plain language that a treasure trough of minerals was, in fact, located.

Were the Argentinian decision-makers privy to important and new geological secrets, perhaps to findings which are tantamount to a breakthrough in discovery? In his interview with Oriana Fallaci, General Galtieri dropped a remark which suggests that he was recently briefed on geological questions.

* * *

No time needs to be wasted discussing the difficulties, and perhaps the impossibilities, of mining in Antarctica. This is a matter of the technological future, and perhaps of the continuation of the slight warming up, which was noted during the last 30 or so years, and which may improve the condition of the ice for human purposes.

In any event, feasibility of mining on Antarctica will be conditioned in part by the availability of large quantities of electric energy. This may be obtained through generation from fissile materials, oil, or coal, and the generators may be on land or on ship. The man in charge of the Argentine nuclear power program is an Admiral, and his choice appears to be eminently logical: the environmentalists are already concerned that nuclear power may be assigned a capital role in the opening of the Antarctic.

* * *

Hydrocarbons are believed to be plentiful on the shelves, including on those of the Antarctic Peninsula and of the neighboring Weddell Sea. There do not seem to be useful deposits around Falkland, but the Argentinian shelf is supposed ~~to be~~ choked full. Yacimiento Petroliferos Fiscales, the Argentine state petroleum company, estimated that this shelf carries nine times more hydrocarbons than the entire North Sea. Three areas are presently worked and are being extended: the bay of Comodoro Rivadavia, the shelf off the Magellan entrance, and the northern Tierra del Fuego. (Chile is exploring and producing in Magellan waters, and in its possessions of Fireland.) Whether or not the deposits are as large as the Argentine estimates suggest, there is much competent exploration and expectations are generally good. Indeed, Argentina is regarded as the best potential offshore prospect in South America.

Note that the seizure of Falkland would not have added much of anything to the Argentine shelf, and that the shelves of the dependencies are small. However, Argentina would have acquired a substantial shelf area in Antarctica. Even if Argentina does not secure additional shelf space, they can use all of their capacities for a long time to optimize or even to maximize production on the large shelf along their home coast.

Next to Mexico and Venezuela, Argentina is the third largest oil producer in Latin America, and it undoubtedly can enlarge its production so massively that it may become one of the world's primary seller of hydrocarbons. The fastest way to prepare a quantum jump forward would be to cooperate with the

few countries which are genuine experts in off-shore extraction. Such a strategy also would seem to be optimal for the purpose of strengthening and accelerating Argentina's industrialization.

* * *

Argentina's strategy is unavoidably connected with global transformations, irrespective of whether Buenos Aires has as yet spent much time in analyzing how they might be affected. Two such transformations are particularly relevant, outer space and inner space activities.

Outer space manifests itself for Argentina in this fashion: satellites travel, broadly speaking, along two different trajectories, equatorial or lateral orbits and polar or longitudinal orbits. The satellites on polar orbits pass over the South Pole and over Antarctica. This traffic calls for surveillance and communications, both in the North, where the required facilities exist already, and in the South, where only rudimentary facilities are available, and where the best positions for this activity are evidently located on Antarctica. Sooner or later facilities will be moved in, together with personnel and a lot of equipments. Argentina (and Chile) may wish to cooperate in worldwide nets, or else they may want to defend their interests if they judge those to be menaced.

Depending on whether space will be militarized, the Antarctic also may be used for military roles. It is to be noted that the USSR has exhibited Fractional Orbital and Orbital Bombardment systems (FOBs and OBs), which move on polar orbits. The precise status of those bombardment systems is unknown, and some experts believe the FOBs are phenomena of Pentagon misinterpretation. But if space bombardment systems should be perfected, the Antarctic may turn out to be a necessary focus in space defense, not only of North America, but also of South America. So far, the subject has been largely ignored. Yet this does not mean that it will remain a "sleeper."

There is no argument about the reality of ASATs, which are under development both in the USSR and, somewhat belatedly, in the U.S. The ultimate shape of those weapons is as yet unknown, and their basing has not, so far as I know, been connected with the Antarctic. But a short reflection will indicate that a basing pattern of global scope would be superior to one of geographic narrowness, assuming that Antarctic locations can be utilized effectively, and/or that positions can be secured in southern continental regions. (Small research rockets have been fired in Antarctica.) There

is no purpose in speculating prematurely about details. The ASATS may be very active if lasers will be found to be useful for defense against ballistic missiles. Those lasers probably will be carried on satellites moving on low polar orbits. Make no mistake: in one form or the other, the Southern hemisphere, down to the South Pole, is becoming an important theater in global strategy.

* * *

*** VLF & ASW

Inner space operations include submarine and anti-submarine warfare which, in turn, is a part of the war at sea. Several types of naval tasks are involved.

1. The Panama Canal may be falling on hard times, its capacity may not be growing with the military and commercial requirement of ship movements, instead it may be declining. This means that a portion of the traffic which heretofore passed through Panama will be diverted to Magellan, Beagle, and the Drake Passage, whose "natural" traffic has been increasing during the last decades. Recently some Soviet traffic between Europe and the Soviet Far East was moving through Drake Passage, which may become a truly important Gibraltar-type waterway. This requires regulatory and control operations in peacetime, and defensive and possibly offensive military undertakings. The guerre des courses which the Germans waged at the start of the two world wars resulted in surface naval battles (Falkland 1914, and La Plata 1939). Thus, even 70 years ago wars between the leading naval powers extended to the South Atlantic. In any future conflict which involves the "world ocean," to use Admiral Gorshkov's term, the Drake Passage and the open seas south of Africa will be critical.

2. Surface ships and submarines may, for various reasons, be looking for hiding and resting places, as well as for places to store and load provisions. Antarctica, islands close to its coast, and islands within the sea ice zone were of interest in the past, and they may serve again in future. In fact, the southern waters and islands may be least menaced by space reconnaissance.

3. Strategic submarines carrying long-range ICBMs may not wish to fire from the open ocean but may prefer waters which make it difficult to locate them during the missile launch, and which offer some shelter to instant counter attack. Furthermore, in submarine redeployments preceding a surprise attack, the southern waters presumably offer tactical advantages, and southern land areas may provide protection.

4. Antarctica is an ideal place, and possibly the only place, where it is practical to lay down very long antennas which may be needed for very low frequency communications with submerged

submarines. In an initial test quite a few years ago a 13-mile long antenna was laid to U.S. Siple station, south of the Peninsula, and communicated with a station in Quebec. For as long as communications with submarines are difficult and unreliable, the participation of submarines in a first strike encounters many obstacles. Until a new technology provides a solution for the critical communications problem, e.g. the blue-green laser, the Antarctic may offer a way out.

So much for surface aspects of modern naval security. Submarine aspects are still more important, especially in the context of ASW.

Broad knowledge of the location of submarines running at depth, i.e. of the battle order below the surface of the sea, is the crux of all defenses against nuclear weapons carried in nuclear-propelled submersibles. The submarines must be identified in terms of nationality and type, the determination of their individual identity has great value, and the movements of the battle order must be discerned. This complex task can be solved only if the observations cover the "world ocean" as a whole and if they are continuous.

The operation requires long-range sonars to obtain a general or strategic picture, and short-range sonars for accuracy such as needed for encounter tactics. The sonars must be supplemented by magnetic anomaly detection, by electromagnetic sensors, and by apparatus to pick up heat anomalies, radioactivity and radioactive traces. The targets must be tracked below and above the sea survace, from the air, and by surveillance from space on multiple frequencies. Furthermore, communications and computer networks must integrate the information, and feed it into the C^3 system.

Surface ships, submarines, aircraft, and space satellites are the mobile elements needed for submarine surveillance, and they need to be equipped with the whole set of sensors and instruments. They must be combined with stationary elements of observation, chiefly sonars, which cover waterways like harbor entrances, passages, narrows, choke-points, channels, etc., and the open seas with its ridges and valleys.

*** SOSUS * * *

Basic to it all, according to the U.S. model, is the SOSUS program which accomplishes sonar submarine underseas surveillance by means of sonars embedded on the ocean bottom.

The effectiveness of SOSUS depends on the range of the sonar signals which, aside from technology, depends on the depth from which the sonars operate. With increasing depth, the range of

the sonars grows. Useful depths can be attained by deploying the sonars on so-called "basins" or "plateaus," and optimal depths are achieved by deploying them on what is known as "abyssal plains," APs for short.

The APs are large and very flat plains (facilitating installation), and they are located at depths of 3,000 to 6,000 meters. The basins are found at depths of 1,000 to 3,000 meters. The APs are quite rare -- their number, world-wide, does not, according to current public knowledge, exceed 30.

In addition to their own intrinsic advantages, the APs are overlaid by the "abyssal zone of the ocean," i.e. by the waters below 2,000 meters which account for four-fifths of the waters of the oceans and seas. Those waters are very calm, they show a fairly constant temperature of 4 centigrades, and their salinity is constant. Those are precisely the conditions which optimize sonar reception and range. By contrast, submarine mountain ranges permit concealment and reduce sonar performance.

The core of the SOSUS program is to utilize every AP for this implanting of long-range sonars.

* * *

XX AP

~~The~~ gods of geography will it that in the Pacific, which is blessed by the immense potential wealth of billions of tons of manganese modules occupying its bottom, the number of APs is minimal. The Indian Ocean is more plentifully endowed, especially in the West. An almost satisfactory number of APs exists in the Atlantic.

APs allow a full coverage of the Arctic Ocean, so that, given proper instrumentation, the odds are that submarine passages between the Kola Peninsula and Bering Strait would be noticed.

The phenomenon of an accumulation of APs at the Arctic extremity is duplicated at the Antarctic end. Here is the line-up:

Bellingshausen AP facing the Pacific
Weddell AP facing the Atlantic
Enderby AP covering the Atlantic and Indian Oceans
Gaussberg AP covering the Indian Ocean north of Kerguelen Islands
Wilkes AP covering the Indian Ocean south of central and western Australia.

Additionally, there are several basins which improve the coverage of the Atlantic (the West and East Scotia basins), and of the Indian Ocean (the Atlantic-Indian and the South Indian

basins). The Southwest and Southeast Pacific basins provide some improvements to the insufficient coverage of the Pacific. The sea ice surrounding Antarctica floats over several "subglacial basins" (which suggests the possibility that the ice may be utilized from below to facilitate concealment.)

The Antarctic Peninsula lies between the Weddell and Bellingshausen APs, and is close to the two Scotia Sea basins. In the South Atlantic the Argentine AP is located in front of La Plata, while the Cape AP lies in front of Good Hope.

In the entire area of the Pacific from Antarctica up north to beyond the latitude of San Francisco, the Bellingshausen AP is the only abyssal plain, and there are only very few basins; except that the Mornington AP, off southern Chile, was recently discovered. Since this AP seems to be small, there was no fundamental cure of the Pacific shortcoming.

Consequently, the Bellingshausen AP is the single most valuable of the set, inasmuch as it provides the foundation of a surveillance system to cover a portion of this immense ocean. Given the interplay between long distances and sonar ranges, the Bellingshausen deep SOSUS sonars will have to be supplemented by mobile forward sonar arrays to compensate for the limitations of the "big ears"; by links with floating ASW platforms and satellite relays; and they need to be linked via fibre optics to signal enhancement equipments, data processing facilities, and computer networks. The end result may not be that the South Pacific becomes "transparent," but that the oceanic sectors suitable for hiding are increasingly restricted, and that their choke points can be watched effectively.

Naturally, the integration of such a complex would require facilities and activities, some of which seem destined to take place on Antarctic soil or ice.

Positions from where the Bellingshausen position can be watched or protected, reliably and quickly connected into the C3 system, and serviced by facilities capable of promptly replacing defective and damaged equipment, especially the proximate Antarctic Peninsula (and possibly Southern Chile), are going to be of immense strategic importance.

The collection of APs and deep basins around Antarctica affects, at least potentially, the naval situation in each of the earth's three oceans. Underwater Antarctica is, therefore, a key to world strategy. By the same token, the effective utilization of the APs for long distance surveillance will result in considerable activity on the Antarctic mainland. In all likelihood this activity will include competitions and

hostilities between the powers engaged in submarine confrontations.

If naval warfare should move southward to execute interoceanic racades and temporary disappearances, the last virginal land of our globe will be engulfed in the military processes of civilization.

* * *

I do not know whether the Argentinians included into their strategy considerations of any or all of the factors I mentioned. It is more likely that they will be surprised to learn of several of the harrowing prospects. But it is safe to assume that they considered Falkland as the gateway to the Antarctic, and that their plans extended to the Atlantic-Pacific passages and the Antarctic Peninsula. A page was being turned.

Evidently Argentina's strategy was designed to collect chips for the future. Hence their strategy may not have been so irrational as it appeared. Except that they were losing chips instead of winning them, and that they woke everybody up.

COMMENTS AS PANELIST

by

Dr. Stefan T. Possony

A lot of hot potatoes have been thrown into the dish. I feel that still another of those hot potatoes should be added.

If the South Atlantic is to be secured, together with the sea route over which the bulk of the world's oil is being shipped, the task cannot be accomplished if we strike the pose that South Africa and the Cape of Good Hope can be ignored.

It is not feasible to build a South Atlantic security structure without the La Plata in the West and Simonstown in the East.

There are political objections against South Africa, especially by Western Europe and by Black Africa. Both Europe and Africa need strategic protection and cannot afford defenses which leave the door or back door unprotected.

There have been political objections against Argentina, too, first voiced by the Left which, as soon as Argentina adopted a ~~silly strategy~~, embraced General Galtieri's policy. Now objections are uttered by those who feel that Argentina betrayed them.

Political rationality demands that first things be handled first, and that they not be made subservient to secondary problems.

Political objections also are in order against the USSR, and those are more weighty than the objections against South Africa and Argentina. The USSR is more dangerous than either of those two culprits, and it poses a steadily growing threat to each of the peoples who lives within the orbit of the Atlantic.

All Atlantic areas -- Western Europe, Black Afrcia, and the South American cone included -- must handle the Soviet threat, that of Soviet aerospace and submarine power, as their top priority -- as their only top priority. So far the Atlantic communities are much removed from that sort of realism.

Allow me now to turn to a still greater problem.

It is conceivable that the Falkland war might have been prevented without hostilities. How? Since space reconnaissance is a fact of life, this capability might have been used with more skill and imagination. Regular and

uninterrupted observation might have indicated that Argentine forces were being prepared and concentrated for attack. The photographs might have been declassified and published in a timely fashion. They would have told the globe beforehand that an aggression was in the making, and they would have identified the side which was going to attack.

With the surprise element dissipated and the invented legend of the war initiation disproved before it was presented, Buenos Aires would have been under a compulsion to prove that it never planned to strike. Such a demonstration can be plausible only if no military operation takes place. Hence as soon as the pictures had appeared in the media, the attack would probably have been called off.

Space photography is the most potent means to prevent aggression that was ever invented. The utilization of this means by NATO is as yet under-developed, and its utilization to influence strategic behavior is regarded as a sin like the profanation of the Holy Grail.

The histroical practice of mutually promising peace or concluding informal or formal non-aggression agreements was disastrous. But it is likely that a combination of carefully formulated non-aggression commitments with mutual space observation, plus an authorization to publish upon receipt all warnings about impending attacks, could dramatically reduce the danger of war, especially locally war.

Such a system also could maintain peace in the South Atlantic, and should be established forthwith.

Subsequently the system should be enlarged to cover the Antarctic and its approaches, and to combine space surveillance with undersea surveillance.

The military provisions could be mated to joint undertakings for mutual benefit, such as construction of infrastructure, meteorology, ice, and fish observation, and to a Treaty providing for the development of Antarctica on the basis of technology, industrialization, credit, free access, a common market, and political sovereignties.

At this time the brains at London and at Buenos Aires may be more malleable than before.

Perhaps the U.K. can get around to suggesting to Argentina that they join forces with Chile for Antarctica, and that the two powers propose a new mutual security regime for the South Atlantic.

MARITIME PERSPECTIVES IN THE SOUTHERN CONE:

A SOUTH AMERICAN VIEW

by

Prof. Carlos U. Lopez
Trustees Distinguished Professor Humanities,
Menlo College, California, USA

The concept of a South American sub-continent, which we are calling the Southern Cone, is a relatively new idea. Therefore, scholars do not yet agree how far North the "cone" should go. Some would go as far as the Equator, while others would stop at the Tropic of Capricorn, passing just South of Rio de Janeiro. Although this paper will deal with the waters surrounding the cone's shores it will be necessary to include Peru, Bolivia, Ecuador and Paraguay in our study since these countries weigh heavily in the geopolitical thinking of the ABC countries.

Basically, the maritime strategic problems that should be considered are three:

a. The natural passages between the Atlantic and Pacific Ocean.

b. The tendency by all governments to prolong their old land boundary disputes into conflicts on control, possession and integration of maritime areas.

c. Claims on the Antarctic.

The West Coast of South America, so often ignored by scholars of economic, political and military affairs serves as an outlet for the product of five countries which export coffee, oil, bananas, iron ore, tin, peaches, copper, grapes and many other raw materials and fruits. This extensive shore is 6000 miles long and at each end, has one of the two passages that connect the two great oceans: the Panama Canal and the Cape Horn routes.

There is sufficient evidence to question the future availability of the artificial canal. In Panama itself, with a confusing political situation, the closing of the canal is considered: "Positive. It is possible at any time in the future and it will be aimed at damaging the economies of the United States and Japan." The Canal could become unusable for the following reasons:

a. Destruction of portions of the canal by enemy attack, foreign or domestic.

b. Closure for political reasons, such as control by international communism.

c. Physical deterioration which seems to be far advanced.

But what bothers our Panamanian friends most, is the fact that neither the United States or Japan, haven't shown any interest over the possibility that the Canal could not be made available to them in the future.

If the canal is closed or destroyed, all maritime traffic between the two oceans would have to switch to the Cape Horn. Already, ships with a beam broader than 110 feet have to use this route and since 1961, with the commissioning of the carrier Enterprise, the United States has given up the concept that American ships must be built to dimensions enabling them to transit the canal. Two reasons have been given for this shift in policy: the United States needs a two-ocean navy anyway, and there "was always the alternative route around Cape Horn." This natural pass could not be closed but it could be militarily controlled by Chile, and or, Argentina.

One definite strategic goal of the Southern Cone countries is to protect this route from attack from outside the continent. Unfortunately, boundary disputes and control over maritime areas between Chile and Argentina have prevented the two countries to work together towards this important goal.

The Cape Horn route really offers the choice of three passages.

* The Straits of Magellan

* Beagle Channel

* Drake's Passage

The Straits offer a safer route, refuge from bad weather, a pleasant large city, refueling facilities and it can be crossed without difficulties by ships of up to 150,000 tons. Chile offers piloting services and the navigation channels are well marked, properly charted and amply illuminated for night navigation. ASMAR, Chile's leading maritime enterprise is planning a complete service facility to service, repair and refuel ships at Punta Arenas. Traffic on the Straits has increased steadily:

Year	'74	'75	'76	'77	'78	'79	'80	'81
Number of ships	425	520	699	735	983	1043	1111	

Since 1981 there has been a decrease in number of ships but an increase in tonnage.

The Beagle Channel is not a practical route. It is very close to the Horn, improperly marked for commercial navigation and not recommended for ships of over 10,000 tons. Both these passages can be easily blocked by naval, air, and even ground forces. While Chile's allies can utilize these passages, her enemies would be forced to take Drake's Passage, south of the Horn.

The rounding of the Horn was a most treacherous route in the days of sail but today it is not dangerous and it is used by supertankers and Soviet ships in transit to the Far East when they want to avoid the Cape of Good Hope. The threat of air attack -- weather permitting -- from the South American mainland, the Tierra del Fuego archipelago or the Antarctic Islands cannot be easily dismissed.

It should be clear that the strategic value of the southern tip of South America is of the greatest significance to all the world major powers. Still, it is the least known, the least understood of all the traffic choke points in the globe. Control of the Cape Horn route, like the Panama Canal may well be the key stronghold to Soviet expansionism and not only the Southern Cone but the whole Western Hemisphere should be aware and concerned about the defence or the threats against it. The Falkland Islands are a key factor in the defence of the eastern approaches. An improperly handled political situation could allow the Soviets to take control. Already the Soviet Union has bases in the Antarctic that go beyond the simply scientific stations that other nations have established there. The Soviet base at Admiralty Bay in King George Island has a large fuel storage capacity that exceeds two million gallons and could reach as much as five millions.

The Argentinians thought that the United States, while seeking military positions around the world to oppose the Soviets, would have liked to have Argentina in control of the Eastern approaches to the southern routes. The South Americans do not want an enemy off their shores but they have now created one. The tragedy of the present situation lies that after 15 years of negotiations, Argentina tried to solve the problem by force. Thus a new dimension has been created in the defensive puzzle.

The dispute over the Beagle Channel islands has considerably disturbed the relations between Chile and Argentina preventing fact about the controversy was the unilateral repudiation by the government of Argentina to accept the verdict from the British Crown to an appeal for arbitration submitted by the two countries under a treaty signed 80 years ago. At Argentina's request the case had been submitted to an international panel of judges and the British Crown concurred with the judge's decision. The arbitration recognized Chilean sovereignity over the islands which have been always occupied by Chileans. In spite of both countries having agreed to abide by the decision by pledging their national honour, Argentina refused to comply and declared, unilateraly, that the verdict was "null and void," even though all her requests for a fair trial had been satisfied.

Argentina then opted for a show of force and threatened to invade the islands in 1978, assembling a large force. The move was restrained by the Pope who offered to mediate. In January of 1980, the Pope's decision was communicated to both governments. The verdict was not made public, but Chile promptly accepted the compromise offered by the Holy See even though it lost some of what she had gained in the arbitration. Argentina refused to act and has attempted to continue negotiations without refuting the Pope's findings.

What is really at stake is the extension of territorial areas into maritime spaces, which, until recently had been considered open seas. Thus, the 200 mile limit in the Atlantic side of the islands gives Chile territorial sovereign maritime space. Argentina clings to the old formula: "Argentina in the Atlantic, Chile in the Pacific". For Argentina the dividing line between the two oceans is the meridian of Cape Horn, which of course, would put the islands into Argentina. Argentina fears that the 200 mile exclusive economic zone is only the first step by Chile of a long range plan to control the South Georgia, the Antarctic Islands and the Antarctic Peninsula. If we are to believe the Buenos Aires dailies, the Pope's decision includes Chile's retention of the islands and their projection into the sea, granting navigation rights to Argentina and giving a shared sovereignity and economic rights on part of the territorial sea.

On several occasions Argentina has closed her borders to Chile, her Air Force and Navy have repeatedly violated Chilean naval and air space, denied transit to Chilean vehicles through her territory, expelled Chilean nationals and even detained some, charging them with espionage. In short, Argentina has consistently fostered a Cold War attitutde towards Chile.

In contrast, Chile's diplomatic campaign has been eminently successful: brought the matter to arbitration and won the case. When the veredict was rejected, it tried again appealing to the Pope. If this attempt fails, it can still appeal to the International Court of Justice. So there was considerable but subdued relief in Santiago when the Falklands adventure failed. It was seen as only the first step in Argentina's strategy to recover territories which, because of poor interpretation of History, she claims have been occupied by foreign invaders. The immediate danger of an armed confrontation between the two countries seems to have passed. Argentina's public opinion would not support another invasion and in spite, of the re-arming of Argentina's armed forces taking place right now, Chile's retaliation, although not strong enough to win a long war, would not be without danger to the agressor.

Still, the cost of peace for Chile has been enormous. The mere threat of war forced Chile to arm at a time when she could least afford it. The country had to prepare for an eventual conflict that does not want while experiencing great market difficulties. The closing of US weapons markets to Chile forcing the Chileans to obtain arms and munitions in the open market at higher prices. This is the result of the deceptive representation of the Chilean government on the part of influential sectors of the liberal establishment in the United States. While the United States professes peace, the Jimmy Carter Human Rights Policy and the Kennedy Amendment has actually advanced the possibility of war in South America. These actions have upset the military balance in the area, impaired Chile's defense capabilities and forced them to go to other market for their military needs. Although Carter eventually made the policy extensive to Argentina, these were unjust, self defeating and counterproductive. But Chile does possess two great advantages: national unity, which is specially true in the Armed Forces, and the personal value represented by each, well trained and devoted soldier, sailor and airman.

Turning to the West Coast, we find that relations between old rivals Chile and Peru have improved considerably since the days of Velasco Alvaradao when Peru threatened invasion from the North. Chile and Peru have no pending boundary disputes and both countries are firm believers on the 200 mile maritime limit. The only spot of friction could be the long held desire of Bolivia to have an outlet into the Pacific Ocean. Most, if not all, Bolivians, firmly believe that the lack of a sea port is the major cause of their negative social and economic development. Bolivians seem obsessed with the idea that without an outlet to the sea they cannot integrate with the rest of South America. They blame Chile for blocking their

access to the shores of the Pacific, although historically, Bolivia never exercised her sovereignity over the shore.

On several occasions Chile has offered to grant Bolivia a corridor to the sea asking in return for a comparable area of Bolivian territory, equal in size to the continental and maritime territory offered by Chile! Negotiations broke down, but the point was made and actually never questioned by Bolivia: maritime territory was considered equivalent to continental land. Peru may become involved because the treaty between Chile and Peru prevents Chile from turning over to Bolivia any former Peruavian territory. Peru would like to somehow, internationalize the port of Arica which serves as terminal for the La Paz railroad. The problem appears to have no solutions in the near future and unless Chile makes some unusual concessions, the possibility of a conflict will remain indefinitely.

Peru does not have immediate maritime disputes in the northern border with Ecuador but the Eastern slopes of the Andes have been, and will probably continue to be, a source of conflict between the two countries. Ecuador, spurred by the oil findings, wants to reach at outlet in the Amazonian basin, a territory that lost partly to Brazil and partly to Peru. This situation has placed Ecuador in a most uncomfortable situation: a small nation surrounded by more powerful neighbors who covet her resources and prevents her from reaching an outlet towards the Atlantic.

The Eastern shores of the cone have not been freed from controversy. Argentina's geopolitical thought has created "Atlantarctica" which has been defined as "the geopolitical space which integrates the East of South America, southwest Africa, the Antarctic Continent and the vast sea limited by these lands." And an Argentinian admiral has added: "this geopolitical region is the main challenge to Argentina, from now until the twenty-first century".

Chile and Argentina's claims in the Antarctic may be the source of future conflicts with some European powers, others than Great Britain. Poland, West Germany and the USSR maintain bases in these territories. But the challenger to Argentina comes from Brazil old land border conflicts, influence on the buffer states and the disputes in the southern Atlantic seem to indicate that conflicts between the two countries may intensify in the future. Brazil cannot accept Argentina's intentions in the southern ocean and it has come up with her own theory for Antartic claims. It is called <u>Defrontacao</u>: Any country whose coast faces the Antarctic, will have rights in the opposite shores of the frozen continent. Although Brazil has yet to

make a definite claim, her government, while signing the Antartic Treaty of 1975 declared:

> Brazil, by virtue of owning the most extensive coast in the South Atlantic, a coast which in her greater part is open to access from the Southern Continent, has direct and substantial interest in the Antarctic.

Brazil also declared as territorial a sea belt of 200 miles along her coast and claimed her sovereignity on the air space over this body of water, the sea bed, and the undersoil. Argentina has complained that such a claim interferes with Argentina's sea communications but has also issued a similar declaration and decreed laws establishing her territorial sovereignity in 1975. An unusual arrangement was made at the mouth of the River Plate where Argentina and Uruguay share a common fishing zone that extends into each other's territorial claims. It is not only an example of how easily sea boundaries can be worked out when both parties are willing but in effect forms a buffer zone between Argentina and Brazil.

But it is not only at sea that the two largest Latin America countries clash. It is difficult to pinpoint the reasons for this rivalry. One represents the Old Portuguese Empire, the other the Spanish Empire. One depends on the Amazonian Basin, the other the River Plate. Each country has developed historical rivalries and has attempted to penetrate the buffer states. The possibility of a military confrontation does exist and it has had an important impact in the control or lack of control in arm limitations. If American influence continues to decline the emergence of a new leader to fill the void can be expected. Both countries are attempting to become such a leader of nations but the rivalry can, and may become more defined as they compete for Bolivian Oil resources or Paraguayan hydroelectric energy. Under these circumstances, even a small and limited armed clash could have profound repercussons not only in the buffer states but may drag along Peru, Chile and Ecuador. A most terrifying scenario appears when we consider that both nations are on the verge of adding a nuclear dimension to their arsenals.

Even though the rivalry may never give way to an armed conflict, it is significant because it is the key to the power balance in South America. Brazil has maintained cordial relations with Chile, Argentina with Peru. Although there are no formal military alliances, offers of weapons, military missions and other exchanges have taken place. Ecuador must somehow counterbalanced her rivalry with Peru amd Brazil with a friendly attitude to Chile and Argentina, while Paraguay,

Uruguay and Bolivia, truly buffer states are subjected to the rivalry and its consequences, rather than acting on their own.

It must be also considered the fact that purchase of weapons increase in proportion to the intensity of the rivalries but they also are influenced by national pride and patriotic attitudes. A good possibility is that the smaller states may obtain weapons from both countries by pitting one against the other. Brazil does find itself in an advantageous position that could allow her to consolidate this temporary leadership through economic, cultural and diplomatic means. Ultimately, Brazil aims at reaching the Pacific, either through diplomatic or economic means.

The declining influence of the United States in South American international politics must be considered. In fact, American foreign policy seems more concerned with Mexico and Central America, then the Caribbean and finally in the Southern Cone. The support for British interest in the Falklands War came as shock to all Latin Americans, even Argentina's rivals. Strict neutrality had been expected and the foreign ministries are still pondering the reasons why. Newspaper editorials point out at the brotherhood of English speaking peoples, a possible Soviet menace, etc. few, if any, believe it was the right thing to do. Will the United States adopt a friendlier attitude towards the Southern Cone? The Reagan Administration would like them to think so. Already important visitors have arrived at southern capitals to participate in seminars, conferences and other meetings and willingly declare to their audiences and to the press that the new administration wants to establish durable and firm policies for the United States in the area. With the Inter-American system in shambles, the time may have come to realize that the Southern Cone deserves attention now, and not after an eventual solution of the Caribbean or Central American crisis. What is needed is a wide revision of policies towards the Hemisphere, specially towards the ABC. Foremost is a need to discuss new security measures that will prevent another Falkland War.

The Falkland War may have finally opened British eyes to Latin America but it has also served as a warning that the <u>Pax Americana</u> is at an end. The United States failed before, during and after the war to influence, persuade or finally force the Argentinians to negotiate. Sympathy or lifting the prohibition of arm sales is not going to do the trick. The latest refusal to participate in the annual UNITAS operation even by countries traditionally friendly to the United States is an indication that the southern countries are unwilling to be taken for granted. A plan must be devised and put into operation to unite the forces of the Hemisphere.

Argentina has long been a proponent of SATO (South Atlantic Treaty Organization). As early as 1954 she sought partners for such an alliance and found no joiners. The time may have come to create such an alliance that would have unified commands, maintain bases, supply depots, combined headquarters and provide deterrence against Soviet or any other imperialistic expansion. Many problems do exist. Brazil will have a hard time joining South Africa in such an arrangement because of her close ties with the emerging African Republics, while Argentina and Great Britain would have to patch up their differences so that both flags can fly alongside each other in bases at Argentina's mainland and at Port Stanley. Looking towards the Pacific, a new more comprehensive organization can be contemplated. The composition of the alliance would change it to SOTO (Southern Ocean Treaty Organization). Thus Peru, Chile, New Zealand, Australia, South Africa and other countries could be included. The United States would seek membership on the basis of her two ocean navy and the need to have an alternative to the Panama Canal.

Such an organization, which included the ABC powers would have a positive effect on the OAS and the Inter-American System. The fact that the strongest countries in the Hemisphere have entered into an alliance of their own would not only contain the rivalries among them but it would lead the smaller countries into a more congenial group. It would force all OAS members to take a good look at what is stage, at the real enemy from beyond the sea. It would force them to clarify their obligations towards one and another and finally re-state the Monroe doctrine not in terms of United States interests but Hemispheric security.

The countries on the West Coast of South America face an unusual challenge. They are at the periphery of a large continent rich in mineral and natural resources but inhabited by relatively few people. Across the Pacific they face the large masses of Asia with relatively few resources and with millions of people. The potential industrial development of the Far East, if we are to judge it by the performances of Japan, Taiwan and Hong Kong is truly enormous. We can expect these countries to reach into the Pacific seeking better diplomatic and commercial relations not only with Asia but with Polinesia as well. Chile, Peru and to a lesser extent Ecuador, will attempt to strengthen relations towards the West. Already, will attempt to strengthen relations towards the West. Already, the Chilean National Airline flies to Tahiti and Fiji and plans to expand soon to reach New Zealand, Noumea and even Manila and Hong Kong. We can expect serious and concentrated efforts to increase trade and culture between the South Americans and the Pacific Islands. Commerce with the East will be the key of expansionism and development for these

countries. The incorporation of Chile, Peru and Ecuador into the Pacific Basin cannot be long in coming. Since the three countries will have to engage in activities that require strong ties and cooperation, the possibility of a solid Pacific alliance based on trade and spurred by a positive surplus balance, looms in the future.

In summary, we need to support and assist these efforts at integration which are beginning to appear in the Southern Continent. Their way of life and the development of peaceful communities should be the primary goal for those who believe that they are working towards a better World and better understanding among all peoples.

LESSONS FROM THE FALKLANDS CAMPAIGN

by

Air Vice-Marshal Stewart W. B. Menaul,
CB, CBE, DFC, AFC, RAF (ret.)

The 1982 British Government's Defence White Paper, which was withheld from publication until the completion of the Falklands war, must be subjected to detailed scrutiny as a result of lessons learned from the operations. The exposure of deficiencies in our sea defences and air attack capbility during the campaign must be examined on the basis that the same ships and aircraft would be deployed in the North Atlantic against the most heavily armed nation in the world if we ever found ourselves at war with the Soviet Union.

The Defence White Paper postulated a reduction in Britain's armed forces despite assurances from the Government that the cuts being proposed, especially in the Royal Navy, would be offset by the procurement of more modern and more efficient weapons. The Defence Secretary rightly stressed that it was appropriate to look more carefully at the weapons deployed on ships, aircraft and land vehicles rather than constantly striving to improve the platforms themselves.

The acquisition of the very expensive Trident submarine ballistic missile system as a replacement for the Polaris, it was claimed, would make little difference to our ability to maintain our commitment to NATO and to fulfill an obligation to increase defence spending by 3% per annum as agreed by the NATO Ministers at their meeting in 1978. But it is acknowledged that the magic 3% should be nearer 5% today just to keep abreast of rising costs.

The results of the Falklands campaign should have effectively destroyed the somewhat complacent attitude adopted by the Government in drawing up the 1982 Defence White Paper and attempting to justify the cuts proposed for the armed forces. They should now think again about Britain's defence policy for the next decade and provide the armed forces with the weapons they will need to fight a war in Europe and the North Atlantic.

Victory in the Falklands was complete. It was a well planned and brilliantly executed operation against all the odds, but it is now necessary to examine the results in an atmosphere devoid of euphoria and sentimentality and accept as a basic premise that we were fighting a third rate power which had not fought a war for a hundred years and whose equipment was largely outdated. Its forces, with the possible exception of the air

force, were poorly trained, badly led and suffered from low morale. Yet they managed to inflict losses in ships and aircraft on the Task Force out of proportion to what had generally been expected.

In the House of Commons on 1 July, the Secretary of State for Defence in the course of a defence debate, announced that all ships, aircraft and other equipment lost in the Falklands campaign would be replaced and in some cases increased in numbers. But simply replacing the losses will not be enough. New ships and aircraft must be provided with better and more modern equipment than that demonstrated in the Falklands if they are to fight successful battles with the Soveit maritime forces or to execute strike missions in Europe. There must be a re-assessment of the weapons proposed for the equipment of future platforms such as new aircraft carriers and aircraft about to enter service for the 1980s and 1990s.

Ship Defences

The defences available to our ships in the South Atlantic were not sufficient to prevent six ships from being sunk and at least ten others damaged mainly by free-fall iron bombs. The Type-42 destroyers such as HMS Sheffield were armed with Sea Dart and 4.5-in. guns. Sea Dart and its associated radar is designed primarily for defence against medium altitude air attack with limited capability against low level attack. Frigates such as Broadsword were armed with Seawolf whose primary function is defence against low-level air attack and sea-skimming missiles.

The original concept for ship defences under what was known as GWS 25 envisaged the deployment of both Sea Dart and Seawolf with appropriate radars and electronics in all ships to provide an effective defence against low-flying aircraft and sea-skimming missiles as well as medium and high altitude attack. But for economy reasons this plan was not adopted.

HMS Sheffield was on radar picket duty as a poor substitute for AEW when she was hit by an AM-39 Exocet air-launched missile fired from a Super Etendard aircraft at a range probably considerably less than the maximum range of the missile which means that when the missile struck it still had an appreciable amount of fuel in its tank. The Sheffield did not know what hit her and without AEW and an effective low-level anti-missile defence system she was in no position to defend herself. The same applied to other destroyers in the Task Force.

The distribution of ship defence systems against all forms of air attack could not prevent heavy casualties to ships and loss of life in the face of determined air attack by Skyhawk, Mirage

and Super Etendard aircraft of the Argentine air force and navy. The Glamorgan was hit by an AM-38 Exocet launched from a mobile vehicle launcher positioned on a coastal defence site near Port Stanley. She was lucky to survive a glancing blow but suffered damage and casualties.

The frigates Alacrity, Antelope, Ardent and Arrow were equipped with Seaslug missiles. Antelope and Ardent were hit by iron free-fall bombs literally thrown at the ships by Mirage and Skyhawk aircraft. Antelope and Ardent were sunk, Arrow was damaged. The two frigates Broadsword and Brilliant which were armed with Seawolf were not hit. While all the SAM systems deployed by the Task Force claimed kills, confirmation of their successes has yet to be produced. The lesson, however, is clear; the ships did not have adequate SAM and gun defences.

Action has already been taken to provide a measure of airborne early warning by the conversion of Sea King helicopters to the AEW role equipped with Searchwater radar. Two of the converted helicopters have been deployed on the Illustrious together with two United States Vulcan/Phalanx multi-barrelled guns capable of firing 3000 rounds per minute of depleted uranium 20mm ammunition. This will improve the defence capability of the Illustrious, but in future the defences of all ships in a carrier Task Force must be improved, whether or not they are in an area where land-based AEW or other air support is available.

Although the main action in the Falklands in the opening phases of the campaign was a sea/air battle in which the Argentine navy took no part, after the sinking of the General Belgrano, it was obvious that the combination of surface ships, submarines and aircraft is still the most effective ASW system whether in the north Atlantic or on any other ocean where our ships might have to operate alone or in cooperation with allies.

The Indispensible Helicopter

Specifically mentioned by the Secretary of State for Defence in his speech to the House of Commons was the role of helicopters in almost every aspect of modern military operations. The Soviets, of course, recognized this long ago. It was tragic that we lost three Chinook heavy lift helicopters when the Atlantic Conveyor was sunk leaving just one to carry out the seemingly endless tasks which it was called upon to undertake. The helicopters proved to be indispensible in sea and land support and in casualty evacuation. Sixteen Sea King helicopters have been ordered for the ASW and commando roles and consideration is being given to using the replaced navy Wessex helicopters to support the TA reinforcing division. They could be flown by pilots in the Royal Auxiliary Air Force.

It is sobering to reflect that the new Kirov class cruiser now fitting out in the Leningrad shipyard will be the first ship in the world to be equipped with a high-energy laser weapon for defence against air and sea-skimming missile attack.

Land Forces Equipment

There were no armoured engagements involving main battle tanks in the Falklands war, but Scorpion light tanks and other armoured vehicles performed well. It is now planned to create two additional armoured regiments in the mid-80s when the Challenger tank replaces the Chieftain, the latter being maintained as a war reserve. There must, however, be provision for the acquisition of some of a whole new generation of anti-tank weapons now in the testing stage with capabilities with far exceed present generation weapons and which would go a long way to offsetting the gross imbalance of something like 3:1 in main battle tanks which the Soviet Union enjoys today.

General Moore said in an interview that the land battle in the Falklands which lasted just three weeks was an infantry battle with artillery and mortar support and that there were few lessons to be learned which would be applicable to the European theatre. Nevertheless, the army in Europe still needs modernization including communications and an increase in helicopter strength. There should be no more talk of cutting back BAOR or re-deploying units from Germany to the United Kingdom in order to find the money for weapons systems which are not essential.

Air Power

The seven Harriers lost in the air battle are to be replaced and an extra seven ordered. These new aircraft must have more sophisticated equipment. The Sea Harriers did magnificently in the air-to-air combat role shooting down at least 27 enemy aircraft without loss to themselves. The only Harriers lost to enemy action were shot down by ground weapons while attacking airfields. Ground attack GR-3s and their replacement the GR-5 must have stand-off missiles and rely less on free-fall iron bombs and cluster bombs. Sea Harriers should have longer range radar and air-to-air missiles such as Skyflash.

Action has already been taken to correct the most glaring deficiency in air defence of the Fleet, the lack of airborne early warning. The Illustrious is now equipped with at least some AEW, but it is necessary to ensure that every carrier Task Force is so equipped whether or not it is operating within land-based air cover. Cover by Nimrod Mk 3 AEW or E3A aircraft from NATO may not always be available even in the north Atlantic. The United States carrier Task Forces retain their E-2C AEW and control aircraft at all times.

The Sea Eagle anti-ship missile has at last been ordered and will be fitted to Sea Harriers, Nimrod Mk2 and Buccaneers when it becomes available in the mid-80s, meantime the Harpoon as fitted in the Nimrod Mk2 maritime aircraft is an effective interim weapon.

It must be recognized that the Argentine aircraft were operating at the limit of their radius of action from airfields 400 miles away on the Argentine mainland, which was like attacking a large amphibious force off the Isle of Wight from bases in the north of Scotland. They could not engage the Sea Harriers in prolonged air-to-air combat and rarely did so even though the Mirages were capable of supersonic speeds and were armed with air-to-air missiles. The Sea Harrier's vectored thrust capability, tested successfully against more sophisticated aircraft, was not given the opportunity to demonstrate its advantage against the Mirages or Skyhawks. If it had, the superior skill of the Harrier pilots would have taken an even heavier toll of Argentine aircraft. Their missions were very much hit and run.

The Harrier GR-3s which were rushed to the Task Force on 8 May were employed in the ground attack role but they carried Sidewinder air-to-air missiles for self defence. Their attack weapons were iron bombs, cluster bombs and 30mm cannon. They too, had to overfly the airfields they attacked and even against untrained and poorly equipped Argentine ground forces the only losses sustained by the Harrier force were from ground fire. It is essential, therefore, that a detailed examination be conducted into the weapons systems carried by ground attack aircraft currently in service and those allocated to new aircraft about to be deployed.

Low-level delivery of free-fall bombs or sub-munitions such as BL-755 cluster bombs or JP-233 airfield denial weapons may invite high attrition rates against heavily defended Soviet targets which stand-off missiles would avoid. It does not make sense to despatch a Tornado costing 11 million pounds on a strike mission armed with free-fall bombs or cluster bombs for delivery from low level, even on a single pass, when the chances of the aircraft being shot down are high irrespective of the damage that might be done to the target. Iron and cluster bombs did not destroy the airfield at Port Stanley and the Task Force commander had to accept that the attrition rate was too high. Stand-off weapons such as the United States Maverick laser guided, TV guided or IR version would be more effective.

Interdiction of enemy second echelon forces is an essential part of NATO strategy for the defence of Europe in the event of war with the Warsaw Pact. Strike aircraft including Tornado,

Jaguar, Buccaneer, F-4 Phantom and F-111 will be employed in the strike reconnaissance role for the foreseeable future, but there is mounting interest in the concept of meeting this task with ballistic missiles armed with accurate HE warheads or sub-munitions terminally guided and capable of long ranges. Such a concept has many advantages, not least the prospect of achieving the objective at much less cost and at greater speed than manned aircraft could achieve. The aircraft could be employed against shorter range, less heavily defended targets and targets of opportunity in the battle zone. Similarly, the task of maintaining quick reaction alert (QRA) could be assigned to cruise missiles and Pershing 2 ballistic missiles when they become available from 1983, thereby releasing tactical aircraft for more immediate close support duties.

The use of remotely piloted vehicles (RPV) for defence suppression and reconnaissance, still not fully exploited in NATO, offers yet another cheaper and more effective way of meeting airborne missions. Defence suppression has assumed greater importance with the build-up of Soviet air defences over the past five years which has seen the introduction of new SAMs and interceptor aircraft with performances better than many NATO systems. Few countries have any anti-radiation weapons, with the exception of the United States, and even fewer have demonstrated the art of defence suppression as well as the Israeli air force in taking out the Syrian air defences in the Bekaa Valley prior to their advance into Lebanon and on to Beirut.

Israeli Attack on Syrian SAM-6 Sites

It was a strange coincidence that at the time we were defending the ships of the Task Force off the Falkland Islands against sustained air attack, the Israelis were demonstrating just how to deal with the most modern and effective air defences deployed by the Syrians in the Bekaa Valley. These defences posed a serious threat to Israeli forces moving north in Lebanon towards Beirut with the aim of destroying the PLO strongholds in the Lebanon capital.

The plan was to destroy the Syrian SAM-6s, the command and control system and as much of the Syrian air force as possible RPVs were flown towards the Syrian defences thereby tempting them to switch on their radars to acquire and track the RPVs before firing the SAM-6s at them. The RPVs monitored the frequencies on which the radars were operating and in real time transmitted the information back to Israeli bases where strike aircraft armed with anti-radiation missiles Shrike and Wolf and other weapons were waiting to take off on a strike mission. And E-2C AEW command and control aircraft was positioned off the Lebanon coast where it could observe Syrian aircraft

movements and listen to ground control communications to the Syrian interceptors.

Israeli F-15s provided top cover for the attacking Skyhawks and F-4 aircraft which carried out the attack on the SAM-6s destroying all 19 sites. As Syrian interceptor MiG-21 and MiG-23 aircarft took off to engage the Israelis their GCI control was successfully jammed. The F-15s attacked and shot down 49 Syrian aircraft without loss to themselves. In succeeding days the Israelis destroyed a further 36 aircraft for the loss of one of their own. We do not have that capability in the RAF.

Many of the weapons systems in our inventory and in the inventories of many NATO countries are out of date.

Defence suppression is now one of the most important aspects of the role of air power. Britain must acquire modern defence suppression weapons and must arm our strike aircraft with stand-off weapons for use against heavily defended targets. They must also have the ability to apply electronic counter measures against enemy radars wherever they may be employed. In the Falklands we could not sustain the attrition rate being inflicted on our Harrier aircraft in ground attack missions. The Argentine defences were primitive compared with those deployed by the Soviet Union, especially SAM systems widely deployed for the defence of airfields, armoured columns on the move and second echelon forces.

The Air Defence of the United Kingdom Base

The United Kingdom base, or NATO air defence region, is inadequately defended despite attempts to bolster it by fitting Sidewinder air-to-air missiles to Hawk trainers and re-deploying 20-year-old Bloodhound SAMs from Germany to East Anglia. A proposal to form an additional Lightning squadron from aircraft in storage was dropped last year and is unlikely to be resurrected. The Soviet Union has produced four new aircraft which will soon be deployed operationally to add to the SU-24, TU-26 Backfire, MiG-27 and MiG-25 aircraft already deployed.

The new aircraft are the SU-27 fighter equipped with look-down shoot-down radar and new air-to-air missiles which gives it a performance estimated to be equivalent to the United States F-15. The MiG-29 is an improved MiG-25 equated to the United States F-18 and is fitted with a track-while-scan radar, a 60 nm search range and a 45 nm track range. It will be armed with the AA-9 missile. The SU-25 ground attack aircraft is now joining operational squadrons and is the Soviet version of the Fairchild A-10 armed with anti-armour gatling-type gun and

capable of carrying 10,000 lbs of ordnance. The fourth new aircraft to emerge from the Soviet aviation industry is called the RAM-P, recently photographed at Ramenskoye test establishment. It is a four-engined jet bomber with variable geometry wings and not unlike the United States B-1. It is expected to have an unrefuelled range of 4000 nm, a payload of 36,000 lbs and be capable of Mach 2.

Against the threat posed by the Soviet Long Range and Frontal Aviation force, Britain needs a much more effective air defence system. The whole air defence ground environment system is being renewed (UKADGE) and when completed in 1984, will provide a modern system compatible with NADGE, the Nimrod Mk 3 AEW and the NATO E-3A AEW to give extensive coverage of Europe and the surrounding seas.

The Tornado ADV, or F-2, will become the standard interceptor in 11 Group. It will have a Foxhunter air-intercept radar, Skyflash and AIM-9L Sidewinder air-to-air missiles together with a 27mm Mauser cannon. But this will not be available until 1984 at the earliest. Even so, we should be looking ahead for a longer range, track-while-scan radar and a missile with the capability of the United States Phoenix. The advanced medium range air-to-air missile (AMRAM) being produced by the Hughes company in the United States has attracted interest and will be available as the F-2 enters operational service. It could also be fitted to the F-4 Phantom, two squadrons of which are to be retained when the F-2 enters service and the Lightnings are phased out. But even with the F-2 and a new ADGE there will not be sufficient capability to defend these islands from north of the Orkneys to the Channel.

All airfields in the United Kingdom, British and American, should have Rapier Blindfire, or better, SAM defences and facilities similar to those in Germany, hardened and capable of operating under conditions of conventional, chemical and nuclear attack. They will be prime targets for Soviet attack in the opening phases of a war in Europe. It could well be that after the initial onslaught, whether with nuclear or conventional weapons, only the Harriers dispersed from their main operating bases will survive to give close support to ground forces.

Attack Capability of RAF Aircraft

The main attack weapons used by the Buccaneer, Jaguar and Harrier are BL-755 cluster bombs, iron bombs, rockets and cannon. AIM-9L Sidewinder air-to-air missiles for self defence can also be carried by most aircraft irrespective of the mission on which they are engaged. Aircraft on alert and readiness (QRA) are armed with nuclear weapons and are not,

therefore, available for immediate use in a conventional role. such missions should in future be assigned to cruise missiles and Pershing 2. The Jaguars and Buccaneers are earmarked for interdiction missions including airfields, second echelon and other priority targets in conjunction with aircraft from other air forces in the alliance. With the weapons systems currently available, attack aircraft of the RAF must overfly the targets to deliver their strikes. Even flying at 100 feet, they will be highly vulnerable to intense and accurate ground fire and the attrition rate is likely to be high.

We do not have ECM or defence suppression capability, or runway penetration weapons similar to the French Matra Durandal weapon currently being fitted to the U.S. F-111. The Tornado has an impressive array of conventional weapons including missiles, rockets, bombs, cannon, air-to-air missiles and flare bombs. Delivery of 1000 lb. bombs, cluster bombs and rockets and the sub-munition anti-airfield weapon JP-233 will involve overflying the target and running the gauntlet of heavy defences. Many of the targets in the interdictor strike role could be better attacked by stand-off weapons such as IR or TV Maverick.

For the future, new weapons for attacks against armour, airfields and second echelon targets are available or emerging which would greatly increase the fire power of NATO forces, including British forces. They employ new guidance systems in IR and millimeter-wave bands and are stand-off or 'fire and forget' weapons of which the Wasp and Skeet systems are examples.

The Wasp anti-armour missile is produced by the Hughes company and is the first weapon operating with a millimeter-wave seeker that finds and tracks military targets without assistance from outside sources. When the main missile is released from an aircraft, it is directed in the general area of advancing or stationary armour. Swarms of mini sub-munitions are released which lock on to individual tanks and home in to attack them. Each sub-munition attacks a separate target. The launch aircraft does not overfly the target and need not actually see it.

Skeet operates in a different mode. A missile containing sub-munitions is released from an aircraft to parachute down to earth where it lands on stabilizing spikes, erects an acoustic sensor and listens for approaching tanks. When the tanks are detected the sub-munitions are released to attack the targets. Skeet can also be projected towards tank formations by ballistic missile which, on detecting tanks, releases the submunitions whose IR sensors detect the signature of a tank or tanks and attack them.

Defence Suppression

For defence suppression similar to the mission flown by the Israelis to destroy Syrian air defences, Britain has no capability either in its Fleet defences or for operations on the European continent against Soviet/Warsaw Pact defences. Some proposals for high-speed anti-radiation missiles are being examined by the Ministry of Defence, but no NATO country has the capability of the United States in this field.

The United States Air Force F-4G Wild Weasel defence suppression squadrons are being updated in equipment and weapons and increased in numbers to undertake the task of suppressing enemy defences around targets to be attacked by strike aircraft. The United States already has Shrike, ARM and HARM anti-radiation missiles for deployment on the F-4G Wild Weasel aircraft, in addition to other conventional munitions including iron bombs, cluster bombs, Sidewinder and Sparrow air-to-air missiles.

The Israelis claim that their Wolf anti-radiation missile is better than any yet produced and their claim would appear to be substantiated by the results achieved against Syrian defences. Britain urgently needs a defence supression capability if it is to undertake attacks against heavily defended Soviet targets. The role of defence suppression aircraft is to precede or accompany strike aircraft, find enemy radar and radar-controlled missile sites and destroy them. RPVs can be used to detect enemy radar emissions and communicate the frequencies on which they are operating to defence suppression aircraft.

The RAF lacks electronic countermeasures capability in most of its aircraft. The only ECM pod available is the Westinghouse AN/ALQ 101 pod carried by Buccaneers and some but not all Jaguars. The Harriers are not equipped with ECM. The Tornado will have the Marconi Skyshadow ECM pod, chaff dispensers and IR decoy flares but no accompanying defence suppression aircraft when they penetrate into Soviet territory.

There are many other areas in which new weapons are needed and in some cases they are available now. The more advanced weapons are in the testing stage and must be acquired for RAF aircraft and the Sea Harriers when they become available. There is no cheap way of providing the weapons systems needed to face the might of the Soviet armed forces in Europe. We must reject the theory of a light, cheap, single seat, propellor driven aircraft as a tank buster -- an idea beloved by World War II Hurricane pilots who are long since out of date with modern developments in weapons and the tactics for using them. Nor is it possible to equip men with primitive hand-held anti-tank weapons to stall the advance of thousands of Soviet tanks into Western Europe. The weapons needed to defend Europe

are and will continue to be expensive, but without them there is no hope of stopping a Soviet incursion, even if conventional weapons only are used.

With the deployment of cruise missiles and Pershing 2 ballistic missiles, the theatre nuclear imbalance will be greatly reduced but not eliminated. It is in conventional and chemical warfare capability that NATO is weakest and Britain must be prepared to modernize her armed forces at considerable cost in the decade ahead.

Conclusion

Britain can only afford to provide her armed forces with the modern weapons they need by increasing defence expenditure to something like 7% of GNP, or find the money by changing some controversial decisions which cannot be justified on strategic, political or economic grounds. This is, of course, the Trident ballistic missile system which already has escalated alarmingly before it has even started. There are alternatives, but for reasons best known to itself the present Government and its advisers seem determined to acquire a system that even they admit is more than is necessary for our purposes.

Despite our successes in the Falklands war, we must concede that while we were fighting yesterday's war, the Israelis were fighting tomorrow's.

V/STOL AIR POWER IN THE ROARING FORTIES

75 Days in the South Atlantic

by

John Fozard, OBE
Divisional Marketing Director, British Aerospace

Operation Corporate was the name given to the military activity for the repossession of the British Falkland Islands and South Georgia in the South Atlantic. This paper reviews the contribution made by fixed-wing air power to these operations from April to July 1982. It focuses particularly on the Harrier and Sea Harrier tactical attack fighters which were the only combat aircraft capable of being deployed in Latitude 52° South.

British Aerospace, Aircraft Group, have only a partial picture of the events in the Falklands campaign; no BAe personnel took part directly, nor were present in operations outside the UK. Even now there remains a need for security on some aspects of Operation Corporate; the information presented in this book, however, is derived from the UK Ministry of Defence and the UK Services. The post-action investigations and reviews which are being conducted by the UK Ministry of Defence will undoubtedly lead to changes in some aspects of this present data. British Aerospace Aircraft Group expect that a number of details will be refined as a result of this retrospective analysis. It is improbable, however, that the broad picture presented herein will be significantly altered.

It was the geography of the theatre of operations which determined the nature and conduct of Operation Corporate.

The only secure airfield available to UK combat, support and military transport aircraft was Wideawake Field in the Ascension Islands, located in the middle of the Atlantic Ocean. It is approximately half way between the UK and the Falklands.

Tactical airpower in support of our sea and land forces therefore could be exercised only by flying from ships or by making use of in-flight refuelling techniques.

Both these inescapable realities were crucial to the conduct of Operation Corporate and its outcome.

British Aerospace Aircraft Group played a major role in the industrial efforts in support of these fixed-wing operations in

order to maximise their contribution to the successful result of the Falklands campaign.

British Aerospace, Dynamics Group, the Prime Contractor for many of the missile systems used by the UK services in Operation Corporate, contributed an equally important effort in those areas of weaponry.

The Sea Harrier FRS Mk 1 entered service with the Royal Navy in 1979. Derived from the (earlier) Harrier GR3 of the Royal Air Force, it is fitted with Ferranti Blue Fox multi-mode monopulse radar and a new weapon aiming/navigation system which uses digital avionics.

By April 1981 the RN had been flying their V/STOL Sea Harriers for almost 3 years in three squadrons. No. 899 constituted the HQ and Training Unit, with No. 800 and No. 801 squadrons as the operational units.

A fourth Sea Harrier unit, 809 Squadron, was formed and trained during the Falklands crisis and, by August 1982, was on duty embarked in HMS Illustrious in the Falkland area. This has permitted HMS Invincible, carrying 801 Squadron, to commence her return to UK after over 4 months of continuous operation at sea.

A major contribution of the RAF to the Falklands campaign was their deployment of Harrier GR3 tactical-attack fighters to the combat zone.

Normally the RAF Harrier force, based in UK and in RAF (Germany), is committed largely to the support of ground forces in the NATO area. In this role the RAF operate the V/STOL Harrier in the field, outside the confines of fixed and vulnerable main bases, over an area which stretches from northern Norway, through the NATO central front, to the eastern Mediterranean.

RAF Harrier GR3 pilots specialise, and are highly trained in ground attack, close air support and reconnaissance duties operating in these roles, chiefly at high speed and at low level, they have perfected to a very high level of military skill the exercise of tactical air power from dispersed sites and rudimentary bases concealed in the natural terrain of their theatres.

For the past six years the RAF have maintained a detachment of up to 6 Harriers in Belize, an independent Commonwealth country subject to territorial threats from a much larger neighbouring Central American nation. From Belize's single 6000 ft runway and from a number of small jungle and coral island strips and

sites, the Harriers have been operated in defence protection and policing roles in support of the UK's defence commitment. Conditions are harsh: dust, coral grit, high temperatures and high, salt-laden, humidity. The RAF's Harrier force in Belize has nevertheless met its duties with great success.

The RAF Harrier pilots and ground crews, and their GR3 attack fighters, came to Operation Corporate from this background. By the nature of their close air support and ground attack duties from land bases, the pilots are not normally night qualified. This specialisation, however, proved no limitation when RAF V/STOL pilots came to adapt their techniques and skills to operation from ships at sea.

HMS Invincible is the first of a new class of flat-topped ship in RN service. She displaces some 20,000 tons and is the largest fighting ship in the world to be all-gas-turbine propelled.

HMS Invincible was commissioned in 1980. She has a 550 ft (150 m) flight deck which terminates at the bow in a 7° Ski-Jump ramp. In peacetime operation she normally carries an air group of 5 Sea Harrier FRS Mk 1 aircraft and 10 Sea King helicopters which are deployed in the ASW role.

She has no catapults and no arrester gear, and hence aircraft using the deck of Invincible class ships are restricted to those having V/STOL, STOVL or VOTOL (Vertical-ONLY take-off and landing) capability.

HMS Hermes operated from 1960 to the early 1970s as a carrier of conventional naval aircraft. She is larger than HMS Invincible, displacing some 25,000 to 27,000 tons, and was first commissioned in her present configuration in 1981.

HMS Hermes has a 750 ft (220 m) long flight deck terminating at the bow in a 12° Ski-Jump launch ramp. As with the Invincible class ships, Hermes in peacetime normally carries an air group comprising 5 Sea Harrier FRS Mk 1 and 10 Sea King helicopters.

Being a larger ship than the Invincibles, she has ample magazine capacity and hangar space, and hence was the chosen base, in the South Atlantic, from which the RAF Harrier GR3 force was operated. During the Falklands conflict, Hermes operated an air group comprising a maximum complement of over 20 Harrier aircraft (FRS1 and GR3) plus 15 helicopters.

Another major RAF contribution to the Falklands campaign was via the use of Nimrod long-range maritime surveillance aircraft. Over 130 sorties were made by Nimrods from Wideawake

airfield in Ascension Island in support of Task Force operations. The longest of these sorties remained in the air for 19 hours.

British Aerospace Aircraft Group, Manchester Division, contributed a remarkable achievement in the first half of the Falklands crisis by the design, test, manufacture and fitting of in-flight refuelling probes to Nimrod force aircraft in RAF service. This industrial support effort enabled the first modified Nimrod to make a sortie over the Falkland Islands within 24 days of the instruction to proceed with this installation.

During the Falklands crisis, some of the Nimrod force aircraft were also fitted with Sidewinder infra-red homing missiles for self defence, and some Nimrods also carried the air-launched version of Harpoon.

The Victor tanker force, the mainstay of aerial refuelling capability in the Royal Air Force, flying mainly from Wideawake airfield in the Ascension islands, conducted some 1500 tanker missions during the course of the Falklands crisis.

Vulcan strike aircraft of the Royal Air Force operated in support of the Falklands campaign, mainly in the night bombing role out of Wideawake airfield in the Ascension Islands. Each sortied needed up to 14 tanker support sorties, because of the extended distances between the base and the operating zone.

The picture shows a modified version of the Vulcan which came too late to be operationally effective during the Falklands campaign. This installation gives an in-flight refuelling tanker capability, so that the Vulcans could augment the overall capacity of the RAF's tanker force.

Early in April the British Task Force was mobilised. HMS Hermes, shown here alongside the wall in Portsmouth harbour, took aboard 12 Sea Harrier FRS Mk 1 aircraft and 15 helicopters. The Sea Harriers were all attached to 800 Squadron, Fleet Air Arm, which mobilised in the period of one day, augmenting their complement from 5 to 12 aircraft, and their servicing crews from about 100 to 160 personnel. By 4 p.m. on Friday, 3rd April, the entire augmented squadron was aboard HMS Hermes, the aircraft landing vertically direct onto the rather crowded carrier deck as the ship lay alongside.

As soon as the Task Force cleared the English channel the ships commenced working-up exercises. HMS Hermes, with HMS Invincible, commenced intensive training of her air group, some of the pilots having as little as 15 hours flying experience in

Sea Harrier before embarkation. The Sea Harriers always operated in pairs.

On leaving the Ascension Islands later in April, Hermes and the other ships in the task force closed up to operate on a war footing, a procedure which allowed only operating personnel below the water line. This posture was held until HMS Hermes once again passed Ascension Islands on her way northwards in July, returning to UK.

This shows a pair of Sea Harriers in hover alongside the port deck edge preparatory to recovering to the deck in a vertical landing. Return to the ship with reduced fuel state after a sortie, even with weapons retained, always allowed vertical recoveries to be accomplished. The fuel needed for the decelerating transition, hover alongside and then VL amounts only to a few hundred pounds. For most of the ship's time at sea no shore diversion was available. No Harrier was lost due to either mechanical failure in or battle damage to the V/STOL flight systems.

Any clear area some 60 ft (20 m) diameter on the crowded flight decks of Hermes and Invincible was a VL spot. The ships did not turn into wind for VL recovery, Harriers approaching at various times from every direction relative to the ship's head -- from astern, over the bow, from the port or from the starboard beam.

This Sea Harrier was photographed, later in the campaign, recovering to the deck of Hermes asymmetrically. One Sidewinder has been fired (launch is always made symmetrically loaded), the resulting lateral out-of-balance being well within the capabilities of the Sea Harrier's reaction control system.

In this picture, looking forward from the island of HMS Hermes, can be seen many of the weapons delivered by both Sea Harriers and Harrier GR3s during the Falklands operation.

Air-burst fused 1000 lb (450 kg) bombs are in the foreground. Reading upwards, in succession, are BL755 cluster bombs, Sidewinder AIM9L infra-red homing missiles and (under covers) 2 inch rocket containers. These stores are carried on the NATO-standard 14 inch centre twin-hook ejector release units in each of the Harrier's 5 weapon stations.

Maintenance work is being done on the Sea Harrier parked on the runway. Both Hermes and Invincible kept permanent flight deck parks throughout the Falklands campaign. Notwithstanding the hostile environment thereby invited, no unusual maintenance problems or notable corrosion-induced defects were apparent when compared with normal peacetime operation, where internal

servicing of the aircraft is normally done below deck in the hangar.

For much of the Task Force's time in the South Atlantic the weather was almost a second adversary. It was not without good reason, in the heyday of the sailing ship, that these parts of the southern ocean became known as the Roaring Forties.

The flight decks of the carriers were moving vertically at times through 30 ft (9m) and the weather produced cloud bases typically 200 ft (60 m) and often down to 100 ft (30 m) during flying operations. Visibility was typically 1/2 n.m. (1 km) and often much less. One Harrier recovered to the deck of Hermes in horizontal visibility of 50 m on one notable occasion. The time-honoured carrier trick of dropping flares at intervals into the ship's wake was used, but it was Sea Harrier's facility to approach the ship using its internal approach aid and Blue Fox radar at part jetborne closing speeds of a few tens of knots which primarily provided the safety and hence the success in bad weather recovery.

No conventional fixed-wing naval aircraft could have operated with adequate safety in such conditions, thus supporting the claim that the greatest military contribution made by the V/STOL and STOVL aircraft is in the VL phase of operation. In the Harrier this phase is made safer, easier and more flexible than in any other combat aircraft.

In HMS Hermes a fixed-wing air group of over 20 Harrier aircraft were maintained by some 140 RN maintenance ratings aided by 20 RAF NCOs. This engineering complement was organised into two watches who worked on a cycle of 8 hours on, 8 hours off for weeks on end. The men involved worked the equivalent of an 85 hour week, much of the time in appalling weather and with the ship closed down on a war footing with sailors sleeping in passageways and machinery spaces.

With the servicing crews living and working in these daunting and wearing circumstances, No. 800 Squadron nevertheless was able to depend on 12 Sea Harriers, out of an establishment of 14, being available each morning and effectively all through the operational day.

Besides the scheduled maintenance and the turn-round servicing, replenishing, rearming and defect rectification activities, there were many occasions on which battle damage repair to the Harriers had to be done. On most of these the aircraft was repaired overnight and available on the flight deck next morning.

After the ceasefire, when the Falklands were available for inspection, a surprising amount of war material was discovered. There were many anti-aircraft guns of 20, 35 and 40mm calibre, some of these being power-directed and radar-laid. It was evident that before the establishment of the exclusion zone by UK around the Falklands, the logistic supply to the Argentine defence forces had been fairly lavish. Most of the stockpiles, however, were found around the area of Port Stanley inferring a lack of capability to re-supply or distribute the material across the islands.

It emerged that the biggest and perhaps the most daunting hazard to the RAF Harrier GR3s operating in close air support at low level was from small arms fire by the ground defences.

With many thousand Argentine army personnel on the islands, concentrating in the later stages, after the San Carlos landings, into a shrinking area around Port Stanley, a badly-directed but most hazardous barrage of fire from hundreds of automatic hand-held weapons could be incited around very many of the targets onto which the Harriers were directed.

There were also a number of missile batteries in the Falklands and most of these appeared to be concentrated in the Port Stanley area, chiefly close to the airfield.

This picture shows UK-supplied Tigercat surface-to-air missiles, but there were also a number of French-supplied Roland SAM systems as well as hand-held infra-red homing missiles such as the UK Blowpipe and the Russian SAM7. Land-based Exocet missiles were also in evidence.

Most of this small-arms, gun and missile defence equipment was located in the East Falklands, with the cocentration heaviest in the area around Port Stanley and its airfield.

These defences were treated with proper respect in the planning of air operations, and missions over the East Falklands and particularly those directed around Port Stanley often resulted in an unwelcome reception with consequent risk of battle damage to the Harriers, notwithstanding the use of tactics and techniques designed to minimise exposure.

This picture shows the results of a 20mm round striking the fin of a Sea Harrier, and the preparations being made for a simple patch repair. Almost all the RAF's harrier GR3 aircraft were damaged as a result of exposure to ground fire in their specialist role, operating at low level in support of the UK ground forces. It was observed that most often battle damage occured as a consequence of multiple pass attacks.

One Harrier aircraft survived a direct hit in the rear section of its reaction control system ducting, but landed back safely aboard HMS Hermes without the pilot having noticed any effect on the flying qualities of the aircraft in hover and vertical landing, and with no more hazard than blistering of paint on the fuselage in the later stages of the VL due to the presence of large quantities of hot air leaking from the duct.

One other aircraft was hit through an important electrical cable in the nose cone forward of the cockpit, and this particular incident took three days to repair. In general, however, Harriers damaged during the attacks on defended areas were repaired overnight, after their return to the ship, and were available on the flight deck next morning.

This shows another typical repair of small arms damage to the glass-fibre drop tank via a simple bolt-on patch.

In the course of an attack on a particularly-aroused ground target, one RAF Harrier GR3 suffered multiple hits which led to rapid fuel loss. No fire resulted but the Harrier simply ran out of fuel en route back to the ship, with one hydraulic system lost but flying in an otherwise serviceable condition. After the engine stopped at 25,000 ft. the pilot ejected safely at 10,000 ft. Within minutes of entering the sea he was winched into a Sea King helicopter and returned aboard Hermes. The pilot was unharmed by his ejection and sea immersion experiences and was given the remainder of the day off duty as a consolation for his misfortune!

The initial force deployed with the Task Force comprised 20 Sea Harriers, 12 in No. 800 Squadron aboard HMS Hermes and 8 aircraft in 801 Squadron embarked in HMS Invincible.

A first reinforcement group of 8 additional Sea Harriers and 6 RAF Harrier GR3s reached the Task Force in May. These aircraft were flown, using in-flight refuelling, from the UK to Ascension Island. They were then embarked in a short VTO/VL hop in the converted merchant marine containership Atlantic Conveyor, at anchor offshore. The ship sailed south to rendezvous with the carriers in Latitude 52° South and the Harriers were ferried, again via a short VTO/VL hop, from the deck of Atlantic Conveyor to the decks of Invincible and Hermes.

Later in the campaign a second reinforcement wave of four additional GR3s were vectored south via the same route, using a second converted containership the Contender Bezant. The Harriers on this ship ferried off her deck in a VTO/VL hop direct to the base by then established at San Carlos.

Although the RAF GR3 pilots had been given some experience, prior to their assignment south, on the ski-jump installed at the Yeovilton, Somerset, RN Sea Harrier base, the first time they made a take-off from a ship was their VTO from Conveyor or Bezant, and their first VL on a "live" deck was the arrival from that ferry hop onto the carriers in Lat 52°S. No piloting problems were experienced.

Final reinforcing flights were made by Harrier GR3s in two waves of two pairs, in an extended ferry flight from the UK direct to the carriers in the South Atlantic, with an intermediate stop at Ascension Island. RAF Victor tankers played a very important role in all these Sea Harrier and Harrier GR3 reinforcement missions.

This shows the Cunard containership Atlantic Conveyor after her conversion to carry aircraft. There was insufficient time available to provide a full capability for Harrier operation, including a Ski-Jump launch runway.

As can be seen, the aircraft -- Harriers and helicopters -- were parked on the main deck protected from green water only by a wall of containers erected along each side of the deck. There was no roof.

The aircraft were landed vertically on the VTOL pad arranged on the foredeck, just behind the wave-breaker screen and the short-for'd mast. They were then secured aft, between the container wall after suitable environmental protection had been applied and covers lashed in place around each aircraft.

En route south from Ascension, one Sea Harrier was held permanently at readiness on the VTOL pad in anticipation of any Argentine air threat. Since Atlantic Conveyor was not equipped or configured for effective harrier operation, no flying was done until the time came for the aircraft to be transferred via a short VTO/VL hop to the decks of the carriers.

Only some 10 RN and RAF Harrier maintenance engineers were ferried aboard Conveyor, in addition to the Harrier pilots.

This photograph shows the first reinforcing RAF Harrier GR3 landing vertically on the deck of HMS Hermes in the South Atlantic at the conclusion of its VTO/VL hop from Conveyor after an 8000 mile journey from UK.

It was notable that absolutely no problem was encountered in converting RAF Harrier pilots -- experienced and qualified in land-base operations only -- to operations from the decks of the carriers.

After arrival on board Hermes the RAF pilots were given two short familiarisation sorties in their GR3 aircraft, launching from the bow Ski-Jump and recovering by VL, before they were considered qualified for deck operations and were declared operationally ready.

This Harrier GR3 was the last RAF aircraft to arrive on board Hermes, of the four which ferried on their own wings all the long way from UK via Ascension to the South Atlantic.

One of these pairs of reinforcing aircraft actually arrived on board during an air raid alert with the ship at action stations -- not exactly the most relaxing of circumstances for a land-qualified RAF Harrier pilot to make his first-ever deck landing on a ship at sea.

The flight refuelling probe, visible in the picture, can be removed in under 30 min by two crewmen, and the aircraft is then ready for operational replenishment and rearming.

Until the UK land forces were in the Falklands, the RAF Harrier GR3 aircraft flew under the command and control of Admiral Woodward, Commander of the Task Force. This photograph shows three Harrier GR3 aircraft lined up on Hermes' runway, each of them loaded with three 1000 lb (450 kg) bombs preparatory to flying a close air support/ground attack mission over the Islands. Later in the campaign, after our land force and the Forward Operating Base were established ashore, the RAF Harrier force was tasked under the direction of the Commander, Land Forces, thus employing the techniques and skills of the RAF Harrier force in exactly the same way as they are accustomed to in their more usual NATO operations.

Contrary to published statements asserting that the Argentine Air Force combat aircraft were operating at the limit of their effective radius of action from their mainland bases, this map shows that the situation was not so slanted towards the UK air operations.

Although the AAF aircraft were flying some 400 n.m. (750 km) to their targets, many had fuel enough to make several attack passes, even on ship targets south of Port Stanley. Because the carriers were positioned to the east of the Falklands, the Sea Harriers and GR3s, arriving at their operating zone from the east, were almost equally disadvantaged.

The map shows some of the principal targets of the RAF Harriers, mainly airfields -- Stanley, Goose Green, Pebble Island, etc.; the triangle represents the missile defence zone around Port San Carlos, after the initial beachhead was established. The racetrack symbols show typical combat air

patrol points where the Sea Harriers flew their holding pattern, usually at medium altitude.

All reports from the combat zone endorsed the persistence, dedication and bravery of AAF pilots. At the peak of AAF air activity, following the San Carlos landings, some 80 to 100 sorties per day were being launched against the Falklands from mainland bases.

Soon after the establishment of the San Carlos beachhead the Royal Engineers constructed a Forward Opeating Base on a site on the north shore of San Carlos Water. This consisted of an 850 ft (250 m) MEXE matting strip with parking and holding loops at one end. It was provided with a refuelling capability by standard "billow" tanks (used in RAF Germany at Harrier dispersed sites) which were floated in to the water's edge, moored and connected to a mobile pump unit on shore. Harriers and helicopters were refuelled at this F.O.B., and the facility was operated by no more than 8 men, led by a Flight Sergeant. At times the F.O.B. held as many as 8 or 9 Harriers and, over the campaign, a total of over 150 Harrier refuellings were done.

It was the practice of Harriers flying from the carriers well to the East of the islands to take up station over the land either on CAP (Sea Harriers) or airborne behind our land force lines (GR3) until their fuel state ran down. If the aircraft was serviceable and weapons were unexpended the Harrier would then VL at the F.O.B. and refuel. The Sea Harriers launched again on patrol and thereafter returned to the ship on fuel depletion at the second time around or after combat.

The GR3s, on the ground at the F.O.B., awaited a tasking call from the land forces. On this being received, the pair would plan the mission in their cockpits, start-up and launch, to be on target with the requested air support typically in 20 to 25 min from a task being set. Thereafter the GR3s would return to the ship for replenishment and rearking.

This mode of deployment endorsed one of the chief features of operational V/STOL -- its ability to provide rapid response to a call for air support without the waste of resources incurred by flying the cab-rank-in-the-air mission typical of the conventional attack aircraft.

On one occasion, when a helicopter had damaged part of the metal matting F.O.B. strip, Harriers landed vertically to refuel on the aft platforms of the RN assault ships Fearless and Intrepid, close at hand in San Carlos Water. This demonstrated the facility of V/STOL to replenish on aft-platform ships at the forward edge of a task force -- the maritime equivalent to the forward base on land.

This picture sets out the roles and missions of the Sea Harriers and Harrier GR3s. All these missions were those which the aircraft was designed from the outset to fulfill.

The operating data shows that the aircraft and their air- and ground crews were fully capable of sustaining intensive operations over a period of weeks, at a rate over twic that which is normally used in peacetime. Harrier GR3s, Sea Harriers and indeed AV-8A Harriers of the US Marine Corps, have over the years repeatedly shown in exercises their capability for intensive operation. But never before has the Harrier family been called upon to deliver military effort for so long and in the face of such hostile natural and adversarial conditions.

Serviceability of the aircraft was remarkable -- especially bearing in mind the rapid mounting of the operation and the 8000 n.m. length of the supply line.

In No. 800 Squadron, during over 1000 sorties -- on average each over an hour in duration -- only two cases of complete Head-Up-Display system failure were encountered. The m.t.b.f. of the Sea Harrier's Blue Fox radar was well beyond that experienced in peacetime operations with comparable but earlier-generation radars.

The reader should note that the results stated in the Table are provisional in respect of numbers and loss cause. BAe expect that current reviews and post-hostilities appraisals will alter the detail. It is unlikely, however, that the broad overall picture will change significantly.

The capability of the Sea Harrier in the fighter defence role is proved beyond question. Whether the final scoresheet in air-to-air combat is 27, or 80, or 31+ AAF aircraft destroyed, the success ratio is still infinity to one, since there were no Sea Harrier losses in air-to-air engagement.

Most of the Sea Harrier kills were against high-performance jet attack fighters, flown very skillfully and with great professionalism. The majority of engagements took place at low level between 50 and 500 ft (15 to 150 m) and involved high load factor manoeuvring at speeds of around 550 knots (1000 km/hr).

Most kills were achieved with the Sidewinder AIM9L which showed a very high success rate, approximately 90%. There were, however, a number of gun kills and these were not all attained against the larger and the slower targets.

So renowned was the reputation of the Royal Navy's V/STOL fighters over the Falkland Islands, that the dark grey painted Sea Harriers of 801 Squadron in HMS Invincible were called "Black Death" by the surviving Argentinian attack pilots.

Adding in those AAF destroyed by Harrier sorties in ground attack, over 40% of AAF losses can be credited to the Harriers. The total Argentine losses account for about 50% of their order of battle at the start of hostilities including those combat aircraft operated by the Argentine Navy.

This table presents the obverse of the losses coin. The most important feature is that no Sea Harrier or Harrier GR3 was lost as a consequence of air-to-air combat.

Losses due to hostile action were due exclusively to the firepower of the ground-based defences. The majority of these -- one Sea Harrier and two GR3s -- were due to small-arms fire and/or light calibre gunfire. One Harrier was lost to a ground-launched infra-red homing missile, and another to a Roland SAM.

The table also confirms that the weather in the Roaring Forties was an adversary almost the equal of the Argentine defences.

~~In three of~~ the four Sea Harrier losses assigned to causes other than hostile action, the weather played a significant part. The violent motion of the ship's deck accounted in large measure for the aircraft which was lost over the deck edge. And the pair which launched from HMS Hermes and were virtually never again detected did so in the most appalling conditions of wind and visibility.

Compared with the well-documented sortie loss rates in missions to defended areas in Europe during WW2 -- where a sustained loss rate of four to five percent was barely endurable and a single-mission loss rate of 8 to 10% was considered as a disaster -- there is some comfort in the low overall sortie loss rate of well under one percent.

Even looking only at the Harriers most exposed to defensive fire power, the GR3s of the RAF force flying their close air support and ground attack missions at low level, a loss of 3 aircraft for a total of 150 sorties provides a mission loss rate of only two percent -- with none of the pilots killed.

In all cases where it is known that ejection was attempted (the unknown circumstances of the two Sea Harriers lost on the same mission make this qualification necessary) the Martin Baker Type 9 seat in the GR3 and the Type 10 seat in the Sea Harrier provided a 100% success record.

Just before HMS Hermes sailed north from the Falklands in July to return to the UK after the cessation of hostilities, all the RAF Harrier GR3s deployed ashore. There was little comfort for both aircrew and ground crew in this environment. The weather was hostile, with low temperatures and bitter winds. Accommodation was in tents. There were large areas of the airfield which had been mined by the Argentinian defence forces, along which the servicemen went at their peril, and there was no available record of the types of mine and their locations.

There was, however, some small consolation to the RAF Harrier Force crews, when they looked out across the runway and were able to see some of the fruits of their operations in support of our repossession of the British Falkland Islands.

While the Falklands campaign was special and in many ways unique, the results achieved by this first operational use of V/STOL must not be regarded as singular and therefore inadmissible in other circumstances. This was no exercise but a real shooting, killing, maiming war; many of its circumstances will reapply in future in some degree.

It is not correct, however, that all the conclusions which can be drawn from the Harrier V/STOL experience will read across to the other V/STOL, STOVL or VOTOL configurations. The reader is invited to consider for himself how many of the points made in the Table would apply to the three-engined Vertical ONLY Take off and Landing (VOTOL) Yakovlev 36 Forger, with all its inherent complexity and inflexibility of operation.

It is by now almost trite to claim the obvious point that the Harrier was the only combat aircraft deployable with existing resources, i.e. using ships in being, and with available access to friendly airfields.

But without the Sea Harrier there could have been no Task Force. Operation Corporate confirmed the capability of the Harriers to operate safely from ships at sea and from rudimentary bases on land, for all of the reasons that are stated in the Table. One of the most notable features of the Harrier's adaptation to operations in the South Atlantic was the ease with which RAF pilots, completely unaccustomed to operating from moving flight decks at sea, adapted to this environment.

the Sidewinders (24/31) ... 45

The success of the Sea Harriers in air-to-air combat was, in large measure, due to their high combat agility. Most of the engagements with Argentine Air Forece aircraft took place at high speed (550 knots; 1000 km/hr) at low level, between 50 and 500 ft. above the terrain or the sea. They involved the combatants in very high G maneoeuvres in an essentially

horizontal plane. It is in this area that the Harrier with its high thrust, low fuel consumption Pegasus turbofan engine comes into its own. This endorsement of the Sea Harrier's fighter capability seems to have come as a surprise to a sceptical and disbelieving world. Both Argentinian Air Arms can now be added to the list of services who have corrected their previously strongly-held Harrier misconceptions.

The benefits arising from the extremely simple and effective form of V/STOL employed by the Pegasus/Harrier combination have been endorsed as never before by this campaign of intensive fighting in the Falklands. The Harrier weapons system proved itself capable of rapid turn-round and high availability, these features acted effectively as a force multiplier, enabling sustained operations to be extracted from a modest total force day after day during the course of the campaign.

The reader should note that no Harrier was lost as a consequence of defensive fire hits in the V/STOL systems. And, finally, the essentially simple nature of the construction used in the Harrier structure and systems enabled rapid battle damage repair to be effected. As noted previously, most repairs were completed overnight: hence this factor also contributed, as a force multiplier, to the effective strength of the V/STOL force used in the Falklands campaign.

The significant facts about this operation were:

* 16 Harriers were launched from the deck of Hermes in 4 minutes.

* 16 Harriers recovered to the deck in VL in 8 minutes.

* After the aircraft were aboard 14 of the 16 were declared 100% serviceable.

In a special sense these simple facts sum up in large measure the contribution of the V/STOL Harrier to the Falklands campaign. They also tell us much about the professionalism and expertise of those RN and RAF officers and men who constituted the UK's Harrier Force in the Roaring Forties.

THE ARGENTINE USE OF AIR POWER IN THE 1982 SOUTH ATLANTIC WAR

Presented by Gregory R. Copley,
Editor-in-Chief & Publisher,
Defense & Foreign Affairs Publications,
Washington, DC

PREAMBLE: Since the war began in April of this year, "Defense & Foreign Affairs" staff and correspondents were at great pains to acquire information on the activities of both major parties to the conflict. And particularly after the war ended, we attempted on numerous occasions to elicit information from official and unofficial sources on both sides of the Atlantic. With regard to Argentina, this was more difficult than for the UK. However, we found several senior-level Argentine sources willing to provide information for use at this Conference, on the understanding that the sources' identities would be kept confidential. I can say, however, that the ranks of the sources were senior ones, and that I had the opportunity to see supporting documentation on some of the information. That is not to say that all the information was accepted by us at face value, or that you should accept it thus. But we have attempted where possible to fit the information in with other information and sources to present a balanced outline of some aspects of the Argentine use of air power during the war.

Argentine Air Force planners were first given the opportunity to evaluate their position and prospects with regard to the British forces only after the British fleet had been assembled to sail for the South Atlantic. Until that time, the use of air power in the retention of the islands by Argentina had not been studied. If nothing else, this gives credence to the argument that the Argentine Junta's original intention was to take the islands and then voluntarily leave them as a negotiating ploy, but, after they had taken them they had changed the rules of the game and decided to stay. But whatever the rationale behind the moves, the fact is that the Air Force only considered conflict after the UK made it clear that it would move militarily, according to my sources.

The first conclusion drawn by the Argentine Air Force planners was that there was no way in which they could maintain air superiority over the islands in the event that a conflict was begun. Range was against the Argentinians, even though they knew that they could get 81 of their 225 aircraft into combat situations. These 81 aircraft, comprising less than 50 percent of the total force, were the Mirage IIIs, the Mirage Vs

(Daggers), the A-4s, and to a minor extent, the Canberra bombers. This is the Air Force complement, and doesn't include the Navy's combat aircraft, which "Defense & Foreign Affairs" sources listed as including up to 15 A-4Q Skyhawks, eight MB.326GB Macchis, a similar amount of MB.339 Macchis, and support aircraft, plus, of course, the eight or so Super Etendards, which were to prove critical.

Of the Air Force aircraft, only the A-4B and A-4C Skyhawks were air-refuellable from the only two tankers available, both KC-130 Hercules. But even with two tankers, this gave the Argentinians the capacity to undertake attack from any direction in the war. The Super Etendards had a buddy refuelling capacity which was also to prove critical, but less flexible than that of the KC-130s. The Mirage IIIs and Vs, however, were extremely fuel-limited and even with droppable fuel nacelles only had the range for one pass over the islands.

The Mirages had to refuse air combat on almost all occasions because of the endurance problem. To accept engagement, they had to drop their fuel nacelles, and this, in any event, meant a mission abort. Several pilots, however, did elect to use all their fuel in combat situations, and then eject, losing the aircraft. I gather that at least two pilots did this. The Argentine Air Force tried repeatedly during the war to acquire additional drop-tanks on the world market, but were unable to do so. And, significantly, this was one item which local industry had not been making. This raises the point that the Argentine forces probably -- indeed, almost certainly -- did not get anything like the re-supply of arms or support equipment they were believed to get from international sources during the war. The drop tanks would have been the easiest thing for, say, the Israelis, the Peruvians, or even the South Africans to supply, bearing in mind the reports which had those three countries sending materiel in to Argentina. But the drop-tanks were not forthcoming, which makes me suspect that they didn't get a lot of other arms on the international market, either.

The Argentine Air Force sources indicated that the Mirages had to come in relatively high straight, because of the fuel, at 19,000 feet, using the information from only one radar on the island. Obviously, as good as the Westinghouse TPS-43 proved to be for the Air force on the island, there were still great gaps in its range and coverage which limited its capacity to serve as a combat information centre (CIC). As well, the incoming Argentine forces maintained radio silence until combat was initiated. In contrast, the sources noted, British forces -- that is, the Harriers -- had a number of ships, as well as airborne information from the Harriers themselves, acting as CICs.

That same source noted rather pointedly that he felt that much of the British flexibility would have been lost had the US not provided fuel to the fleet during the conflict.

Having only two tankers meant that the Argentine Air Force could only field a limited number of strike or combat aircraft at any given time. And even then, they were forced to refuel at higher altitudes than they would have liked, exposing them to British radar detection. Interestingly, because of damage to fuel cells and lines on some of the Argentine A-4 aircraft, many aircraft had to be refuelled several times en route home. More than five aircraft, having made it as far as the KC-130, stayed hooked up to the tanker virtually all the way back to base because all their fuel cells were lost. They were feeding fuel directly from the tanker to the engines until final approach.

The sources, who were involved in the missions, noted that things became considerably worse for the Argentine Air Force when the Rapier and Blowpipe SAMs were put ashore at San Carlos Bay. The density of British air defenses on that beach-head was regarded by the Argentine pilots as almost overwhelming, compared to the relatively light air defenses earlier. Commenting on the Rapiers, Blowpipes and AIM-9Ls used in the war, one Argentine fighter pilot told me: "These were the stars of the war." But, he added, the Argentine pilots gained immense respect for the Harriers they faced. "This we regard as a superb aircraft," the pilot said.

Those sources I spoke with all said that the Sea Dart, aboard the British ships, were not regarded as a particularly worrisome threat compared with the Rapiers and Blowpipes ashore, and to the Sea Wolf at sea. There may have been some Argentine misconceptions here, however, because they believed that the Sea Wolf was responsible for more damage than, I understand, the UK sources credit it with. And I understand that only two ships were in the combat zone with Sea Wolf. So it is possible that the Argentinians believed that some of the Sea Dart kills were, in fact, due to Sea Wolf.

There was considerable misinformation surrounding the extent of damage done to the airfield at Port Stanley, I was told. There was, in fact, no serious damage done to the field, despite the repeated bombing runs made against it by Sea Harriers, RAF Harriers and Vulcan B.2s. This was reflected in the fact that the Argentine Air Force kept up use of the field throughout the conflict, the last C.130 leaving it at 3PM on June 14, as the British were coming in to Stanley.

There was one near miss at the end of the runway, and some very minor damage which was quickly repaired. As aerial photographs

showed, there were some hits during these raids on huts and tents, which caused some casualties. The base commander at the airfield, however, made use of the Vulcan and Sea Harrier runs to paint simulated hits on the runway, and throwing some dirt around these works of art. His intention was to spread the belief among UK forces that they had no airfield capacity when they were in fact continuing to use it.

Said one source: "We had no real runway hits in the 45 days of combat." This, all sources agreed, was due to some of the poor strike techniques employed by first the RN Sea Harriers, and then the RAF's Harriers. They were coming in on fast, low deliveries which were inaccurate, or toss-lobbing their bombs ineffectively. Significantly, many of the sub-munitions used in the anti-airfield bombs failed to detonate, causing problems for the British as, of course, bomb failures were to cause problems for the Argentinians. The Argentines report that when the RAF Harriers came in it seemed as though they were determined to do the job on the airfield which the RN had failed to do, but in the end resorted to exactly the same delivery techniques as the RN.

While the Argentine deployment of weapons, and their subsequent distribution and use by ground forces, has been criticized (justifiably in my mind), the Air Force makes it clear that it was not for their lack of effort. After May 1, the Air Force put 435 tons of cargo onto the islands, and evacuated 264 wounded men. After May 1, the C-130s, including the two KC-130 tankers, flew a total of 2,000 hours up to the end of fighting. Prior to may, the Boeing 737s flew a total of 300 hours on missions to the islands.

During the pre-invasion period, Royal Navy ships were operating close to shore and using their Vickers 4.5 inch naval artillery for bombardment, causing considerable havoc and casualties. The Argentine Army responded with 105mm light howitzers, and then the Air Force flew in some 155mm heavy howitzers. This had the effect of forcing the British ships further offshore, and minimizing coastal bombardment damage, and this might have saved the airfield from serious damage.

Then, during this period, the Navy dismounted one of its MM.38 Exocet systems from a frigate, and the Air Force flew it in a C-130 to the islands. As became widely known, this was used one time, with what could have been devastating effect, against a British warship, HMS Glamorgan, on June 12. The MM.38 was not, as widely believed, a truck-mounted unit. The Air Force and the Army both operated the Oerlikon-Buhrle 35mm anti-aircraft gun system in conjunction with the Contraves Super Fledermaus target acquisition and fire control system. "This was an excellent system," the sources all agreed, and was

responsible for several kills of British Harriers and helicopters. One of these gun radars was, however, taken out by an anti-radiation missile which the Argentinians believe was a US Shrike. Why didn't the British use their Martels? was the question the Argentinians posed to me. The Army, by the way, also used the Rheinmetal 20mm gun system on the island.

There is considerable controversy over the losses suffered by the Argentine forces, and while I couldn't get my sources to provide information on the Navy and Army losses -- which they didn't have access to -- they did tell me that the Air Force lost:

36 officers killed, including three each in the loss of the C-130 and the Lear Jet;
14 NCOs killed; and
5 soldiers killed.

Some were lost to weather accidents. A total of 34 Mirages and A-4s were lost by the Air Force, some 41 percent of the force deployed to combat. Contrary to earlier reports, not one Super Etendard was lost by the Navy. It had been thought that the Super Etendard which fired the Exocet against HMS Sheffield had run out of fuel and ditched, but this report is not true, the sources say.

On May 1, I was told, a Canberra overflew either Invincible or Hermes, at deck height, and reported a Sea Dart making an uneventful near miss past his cockpit. The aircraft was apparently subsequently hit, taking a section of his outer wing. As he was approaching his base on return, he radioed that he "had got something big," but lost control of his aircraft and crashed and died in bad weather on the final approach. This may have been why the Argentinians believe they had hit HMS Hermes.

This raises the question of the impact of weather on the Argentine air operations. On many occasions, poor weather prevented target acquisition and/or identification. On the islands and the approaches to them, between May 1 and June 14, there were 14 days below minimum weather standards. Six were marginal, and 24 were operational. From the Continent, three days during this period were below minimum, two were marginal, and 39 were operational. It was below minimum weather on May 22 when the British fleet approached San Carlos bay. And on June 2, 3, 4, 5, 9, 10, 12, and 13.

The Argentinian estimate of British losses was 12 to 14 aircraft, and 12 helicopters.

When they hit the freighter Atlantic Conveyor, they were

looking for the British carriers. The Super Etendard and its escorts left the continent and flew north of the islands, and then 110 miles north-north-east of the islands they turned south, and eventually hit the Atlantic Conveyor 70 miles northeast of the islands.

The Argentine Navy and Air Force aircraft also launched an attack on HMS Invincible during June, after the Atlantic Conveyor attack. That attack force of one Super Etendard and four A-4C Skyhawks reportedly left the continent and flew south of the islands, and further east than the islands and the carrier task force. Turning in from the east, they picked up a "big" target, and the Super Etendard launched its AM.30 Exocet from a long distance, so long, the sources claimed, that there would have been very little residual fuel in it when it hit its target. The fact that they hit from the east was, they believed, important because the carrier's defenses were spread in an arc westward of it, leaving a largely unscreened eastward rear.

As soon as the Super Etendard fired its Exocet, it turned straight for home. The two outer A-4s in the V-formation were hit almost immediately by what the Argentine Air Force sources believe were Sea Wolf SAMs, not Sea Darts. The two remaining A-4 pilots say they saw the carrier smoking considerably after the Exocet hit. One A-4 then flew in over the Invincible and identified it, and delivered, was told, three 1,500 lb. bombs onto the vessel. The smoke increased. The remaining A-4 then made a run in, but couldn't see the ship, except for its stack, because of the smoke. Both A-4s turned immediately for home, taking two air-to-air refuelling shots to reach base.

The Invincible's location was deduced from radar tracks by the Air Force's TPS-43 radar on the island. It had, over a period of days, tracked the Sea Harriers' return flight paths after they had made their runs over the islands. Then, by deduction, they figured the arc in which the carrier must be. Presumably they also determined from the amount of time over the target by the Harriers, just how far they were flying back to their base ship. In any event, the hit was about 70 miles to the east of the islands.

I asked repeatedly what information had been passed to the Argentine forces by the Soviets and/or the Cubans, especially bearing in mind the significant timing of Soviet reconnaissance satellites over the combat zone, even prior to the war, I was told emphatically and angrily that the Soviets had not provided any intelligence whatever, but some of the sources believed that the Soviets made it sound as though they were in fact providing assistance including intelligence. One senior source

told me: "We have just finished fighting the communists. We have taken nothing from them."

The Argentine Air force planned 505 combat sorties from the continent during the 45 days of combat. Of these, 445 were actually flown. And of these, 302 arrived at their objective. 2,782 hours were flown in combat missions. Search and reconnaissance missions, including diversionary/deception missions, totalled 466 flights.

The Argentinians claim that six British ships were sunk, 10 were damaged, and seven more were claimed as probably damaged. This figure, I understand, is not so far from the British statement, the only difference being in the region of the seven "probables."

It was noted repeatedly during the conflict that the Argentine bombs weren't detonating, a fact blamed by observers on either the fact that they were out of shelf life, or that the fuzing was not set for such low delivery, or that they were land-targetted bombs which needed firmer targets. The Argentine pilots were aware, they said, that some of their bombs were not detonating. But they point out that their armorers had finally been able to solve that problem by the time, later in the war, when the British landing ships Sir Galahad and Sir Tristram were beginning their assault in Bluff Cove on June 8. Sir Galahad, Sir Tristram and HMS Plymouth -- a frigate -- were all seriously hit, bringing about the biggest British troop losses of the war. All of these bombs were effective. According to one pilot, even one of the bombs -- delivered so fast and so low that it skipped across the water and onto the beach -- hit an ammunition dump on the shore, causing a huge explosion, although for the loss of only two lives, he said.

Some of the other observations which the Argentinians made to me included the fact that they believed that the RN's Sea Harriers early in the conflict were not using the AIM-9L model Sidewinders, but an earlier, less capable, model. These, they say, were ineffective and beatable. They said that it was slightly later in the war that the AIM-9Ls were being used against them with, they admit, devastating effect. We at D&FA observed, however, that well prior to the war, the Sea Harriers on HMS Hermes had AIM-9Ls, rather than the older models. The question is whether these had been replaced with older versions by the time of the conflict, or whether there were other factors which caused the earlier low kill rates.

Another observation was that, when an A-4 went in to strike at a British ship, the vessel's defenses seemed to go blind for a couple of seconds after the first aircraft had made a strafing

run. The second aircraft in the wave was then able to go in without any real opposition. They noted that the 30mm cannon proved valuable on anti-shipping runs, and that the ships seemed far too soft-skinned to cope with 30mm shells.

They also noted that the UK had bought two ship repair vessels, including one called the "Insurgent," during the war, and that these were still at South Georgia Island, apparently, and still repairing some RN vessels.

In my discussions with the Argentine Air Force officers, there seemed to me to be a strong sense of balance, and a readiness to admit shortcomings on their own side. They would not comment on the actions or capabilities of the other services, but it was my impression that they felt confident that they had proven themselves as an air force. I think that this is so, especially bearing in mind, as they kept reminding me, that the UK did in fact have the physical and tacit assistance during the war of the US and other European states whereas the Argentine Air Force had been denied much in the way of modernization for quite some years.

I noted that the British seemed pleased to have acquired the TPS-43 radar, by capturing it after the war ended, and they commented that it could not have been in working order as they had sabotaged it. I said that I understood that it was in working order, and they said that the British must have very wisely decided to disassemble it before trying it out, as turning it on would have caused it to destroy its circuits.

Like all the findings of the war at this stage, this report is quite obviously incomplete. It does, however, provide a very different perspective to the mass of information which we have had to date.

AIR DEFENCE IN AND AROUND THE FALKLANDS 1982

by

Major General Ken Perkins, CB, MBE, DFC
Military Adviser, British Aerospace Dynamics Group

1. I doubt if the recent operations in and around the Falklands have produced any completely new lessons but they have reminded us of some old ones which were apparently in danger of being disregarded, at least by UK since we last went to war. Disregarded not because senior Service officers had forgotten them but because financial constraints and a particular political setting had produced forces which were tailored for another situation. In other words, forces which had been designed for a NATO battle in the North Atlantic found themselves engaged in a national operation in very different circumstances.

2. The Falklands provided the first work out in a maritime environment for modern missiles of a variety of natures and it is here that the old lessons are seen in a new light and it is on such aspects I shall dwell today and tomorrow, with the intention of assessing the effectiveness of the various systems, looking at the future and drawing lessons. But first, just cast a backward glance.

3. The strategic principles concerning the complementary natures of land, sea and air power were illustrated vividly during World War II and I doubt if it can be seriously argued that they have changed. However, in 1967, when Soviet-built Styx missiles sunk an Israeli destroyer, and 1973, when the Israeli Air Force met the combination of SA6 and ZSU 23-4, that missile technology really began to impinge upon tactical principles. Those events caused many of us to think again about the means of gaining air superiority. Counter air operations as a way of establishing supremacy by eliminating the enemy at source seemed an unduly hazardous method; a do-it-yourself umbrella provided by the surface forces themselves seemed a better option. But offence and defence in this area was already into a game of leap frog and so it continues: witness the seemingly contradictory evidence from the Falklands and the Bekaa Valley in Lebanon.

4. With such contradictions how are we to make any sensible assessment of the Falklands and draw conclusions in which we have confidence? The first point to make is that if we wish to understand what happened we should rely more upon broad judgement than on close statistical analysis, for war is more an art than a science. It is a muddle in which the innate quality of men and equipment is just one factor among the many which determine performance. These factors are seldom capable of precise quantification and a number of battles, including Waterloo, would real strangely on a computer printout. The victor is usually he who makes least mistakes.

5. This broad judgement reads well, the air defence accounting for some 60% of the aircraft which ran its gauntlet. No enemy could continue for long in the face of such attrition. Moreover, although the attacks were pressed home with extraordinary valour and considerable skill and accounted for a number of ships, the high value targets such as carriers and large troop ships remained unscathed even when moved relatively close inshore. The nature of the threat at any given moment determined which systems were active at that time but it will be seen, when all are viewed against the complete background, that all systems played a vital part.

6. Any assessment of weapon performance needs to be in light of particular circumstances, part of which is the quality and quantity of the opposition. Let me remind you of the Argentinian threat to the UK Task Force. By far the most potent element was that posed by the Air Force. Here is the inventory of offensive aircraft. We should in particular note several important factors:

   a. The Skyhawks and both types of Mirage, all with a bomb load of 2,000 lbs, had but little fuel to play with on reaching the Falkland Islands but perhaps that was not a vital factor as the landfall and target identification was easy. The UK carriers could, and did, remove themselves from within the Mirage and Skyhawk radius of operation by remaining well to the east of the Falklands, although this inevitably placed the Harriers at some disadvantage.

   b. The Pucaras were based on the Falklands and in such a setting posed an ominous threat.

c. The five Super Etendards, which carried the Exocet missiles, had a radius of only 375 miles and, therefore, had to be inflight refuelled to join the battle.

d. The Argentine Air Force only had to KC 130s capable of inflight refuelling and as these were barely sufficient to cope with the Etendards there could not be much tactical flexibility for the remainder of the attacking forces.

e. The Canberras, on the other hand, could carry a 8,000 lbs bomb load and include the Falklands easily in their radius of action but they played little part and I shall return to this point later.

f. A considerable threat was posed by aircraft from the Argentine carrier - 25 de Mayo. This threat was contained by Royal Navy submarines who demonstrated their potential by sinking the General Belgrano when she threatened the Task Force.

7. With hindsight, and a clear cut victory for the air defence, it may now seem that the card were stacked against the Argentinian Air Force. It did not seem so at the time with geography and number of aircraft overwhelmingly in Argentine's favour. The UK air defence which proved so successful consisted of complementary systems: Sea Harrier and Sea Dart at long distances, Seawolf and Rapier close in. Sea Cat also played a significant part. Self defence included Blowpipe and guns of varying calibre. All systems laboured without Early Warning and first a word on this.

8. No early warning aircraft were available. British defence strategy had resulted in a Royal Navy designed to operate in war within the NATO environment; someone else was to provide the early warning. It was not a disregard of principles but a political strategy. Of course, had the RAF Nimrod airborne early warning aircraft been available it could, with inflight refuelling, have been based on Ascension and covered the requirement. But it was not yet available and the Royal Navy had to rely upon its shipborne radars which were of limited value for early warning. The main radars of the two aircraft carriers, Invincible and Hermes, sailing most of the time a few hundred miles to the east of the

Falklands, could provide but limited cover towards the Argentine. (The large circules on the map show the radar cover at height while the smaller one gives the low level cover. You can see the cover is dwarfed by the vastness of the ocean. It explains, also, the impossibility of ensuring a 100% blockade of the islands.) It was, therefore, necessary to position ships as radar pickets much closer to the Falklands to give advance warning to the main elements of the Task Force of the approach of enemy aircrat. These ships were thus at considerable risk and you will recall the names of Sheffield and Coventry who were lost while on such tasks.

9. Turning now to the actual air defence. Although my remit is to cover the missile element, and a previous speaker has dealt with the use of air power, I will give a resume of the Harrier air defence operation as without it the missile defence is less comprehensible. The 20 Sea Harriers, armed with Sidewinder AIM9L, which sailed with the Fleet in mid-April, provided the first layer of air defence. Subsequently eight reinforcement Sea Harriers and 14 RAF Harrier GR3s arrived, the latter to undertake ground attack and free the Sea Harriers for air defence, making a total Harrier commitment of 42. The GR3s had been hurriedly fitted with AIM9G Sidewinder missiles to give them some air-to-air capability. The Harrier, as is now well known, gave an exceptionally good account of itself. It is known to have shot down 27 aircraft, some 40% of all enemy aircraft confirmed as shot down. Some 75 enemy aircraft were, in all, confirmed shot down and it seems certain that some other aircraft which were damaged would not have got home. One or two were seen to crash while attempting to evade Harriers and air defence missiles.

10. The next layer of air defence was the Sea Dart, a long range ship-to-air and ship-to-ship system. The missile is supersonic, being a ram-jet with semi-active homing. (A tracking radar illuminates the target enabling the missile to home.)

11. The Argentines also possessed Sea Dart and, knowing its characteristics, were very wary of its lethality. At least eight aircraft which were foolish enough to enter its zone of fire were brought down but others avoided it as far as possible and this area denial was a significant measure of its success. Most significantly Sea Dart, being so effective at higher

altitudes, forced enemy aircraft down to flight levels where the Sea Harrier could wrest an air-to-air advantage. The Canberras you will recall had the legs and bomb load to make a significant contribution; Sea Dart undoubtedly prevented this. Argentine surveillance aircraft kept well away and thus were unable to provide the essential information which aircraft needed if they were to plan attacks against the higher value targets such as the carriers and troops ships. Attacking aircraft were also forced by Sea Dart into flight profiles they might otherwise have avoided, bringing them into the lethal zones of other weapons and situations which caused them difficulties over bomb fuzing, so that many were not armed in sufficient time to explode on hitting the target.

12. Experience in the Falklands will undoubtedly lead to further improvements of this highly effective system, options which are already under detailed study by BAe. These include lightweight or a containerised mobile system portable beneath a Chinook helicopter, and a land based equivalent known as Guardian.

13. To sum up Sea Dart. It was a most successful and significant part of the defence deterring the enemy even when silent.

14. The only modern point air defence in the Fleet was undertaken by Seawolf. It has not long been in service and it was unfortunate that only two of the ships which sailed with the Task Force had been equipped with it. This is a fully automatic system designed originally with Soviet missiles and the North Atlantic in mind. It has deadly accuracy and has in trials hit a 4.5-in. shell in flight. It was most successful and on the very first occasion it was used in action it accounted for three of the four aircraft which were attacking in a single wave. In all, at least six aircraft were shot down and after the first few days, Argentine pilots, given the choice, went for other targets and avoided the ships armed with Seawolf. The Exocet missile was not launched against either of the two ships armed with Seawolf.

15. The particular circumstances provided a technical challenge; Seawolf had been optimised against Soviet missiles rather than Exocet. However, it was found that these problems could be overcome by software changes and these were introduced virtually overnight

following trials in UK, thus demonstrating the flexibility of the system and its ability to keep pace with a changing environment.

16. Seawolf is already being further developed to meet the increasing threat. We were aware before the Falklands that a concentrated missile attack might saturate the defences and that the increasing threat gave rise to the need for more launchers and a higher rate of sustained fire. Therefore, we are moving into an era of Seawolf with improved electronic countermeasures resistance, multiple channels, autonomous homing heads and offering the missile in a vertically launched configuration. The latter has many advantages but not least is the ability to fit the system to small and large vessels alike. It can also easily be containerised for rapid arming of support ships. Although it is expensive and difficult to convert land systems for use at sea the converse is relatively simple. Seawolf, as a proven anti-missile system is, therefore, potentially effective as a point defence land system where vital installations such as radars, and hence whole air defence systems, are vulnerable to anti-radiation missile attacks.

17. I know there is a great deal of interest in the comparison of missile expenditure with aircraft hits but I emphasise these statistics are meaningless if taken out of context and I would suggest that the litmus test of weapon success in battle is the damage inflicted. If a defence knocks down two out of every three aircraft, a sustained attack becomes impossible. There will, however, be valid technical reasons for wanting to examine the actual kill ratio, missile to aircraft, but unless a good deal of supporting information is available, misleading conclusions may be drawn. It would, for example, be necessary to know which aircraft were engaged by more than one system and such information is unlikely to be available. It is sufficient to note that neither of the two ships armed with Seawolf were sunk. As I said before, it seemed that Argentine pilots, given the choice, went for other targets. Seawolf is clearly needed as an essential part of a navy's inventory. Certainly the Royal Navy will be increasing its orders as a result of the Falklands experience.

18. Rapier was the third BAe surface-to-air missile to undergo the severe test of war. This highly mobile

system is capable of full blind fire operation when it is automatically directed by radar, or it can be operated visually without the use of a tracking radar. It is a hittle, in other words it explodes inside the target and will thus destroy any aircraft, unlike some missiles with proximity fuzes which might well be ineffective against modern armoured aircraft.

19. The lead Rapier battery for the operation received its initial warning in its UK barracks only two hours before it was due to go on Easter leave. Thereafter it had a little under 48 hours to prepare for war before driving away to embark. You can imagine the scene, embarking troops and equipment in a hurry without rehearsal. Equipment designed originally to travel under many conditions but not in the water slopping about on the tank deck of an assault ship. The equipment so tightly packed it could not be got at during the voyage. The personnel necessarily split between various ships. Then after this nautical adventure lasting some eight weeks, being unceremonially bundled ashore in the manner of all amphibious assaults. they chose to take ashore only the equipment associated with the optical mode of operation. So, they swing ashore beneath helicopters and with no opportunity of shaking down, Rapier and its operators, at war for the very first time, were put to the test. And what a test. It involved hours of waiting at immediate notice in appalling conditions, a trial in itself of serviceability, and then when the weather cleared, dealing with waves of aircraft skimming the surface at 400 knots or more and, because of the terrain, in view only intermittently. We know of no other existing land based system which could have coped; the terrain and the extremely low levels at which the attacking aircraft approached would have defeated systems dependent upon radar or what could not have fired downhill while proximity fuzes would often have triggered over our own troops or ships, so low were most targets. In the confusion there were widely conflicting claims for hits, some over 20. 13 have been confirmed beyond doubt. Let me quote from the Battery Commander's report: "Our final total of a baker's dozen aircraft belies the difficulties of the terrain we were on and the very unusual attack profiles used by the Argentinian pilots. The broad, U shaped valleys meant angle of depression problems for the ridge sites (not to mention mist and low cloud) whilst the valley bottoms severely limited arcs and coverage. Fast jets at 50 feet and travelling at

speeds up to and in excess of 500 knots are difficult enough but add frequent obscuration behind pimples of land, multiple weapon systems all firing at flat trajectories, and the majority of targets being visually acquired at ranges of 3 kms or less and you have something not catered for either in the training films nor at practice camp. New techniques were developed whereby missiles were fired and then once gathered were turned to chase retreating aircraft."

20. Take a few more seconds to consider the situation. It was hardly surprising in an operation involving land, sea and air that equipment was sometimes misdirected. Once in action there was resupply and maintenance to be undertaken with minimum helicopter support and in simply appalling conditions. Action in support of the Fleet was at extreme range with targets often disappearing behind the ships, on which occasions the operators had to pull the missile off for fear of hitting their own side. Of course, Rapier was not designed to operate in support of the Fleet any more than the latter was built to fight in the confined space of a land locked sound; but the unexpected is commonplace in war and equipment needs to be versatile to overcome the resultant difficulties. Rapier is exactly that.

21. Rapier and its resupply was often moved beneath helicopters and there were, as always, too few of these. Some of the difficulties of deployment might have been eased had Tracked Rapier been available to overcome the atrocious going. Next year when it will be operational the force will be balanced to meet all emergencies if it has a mix of tracked and helicopter portable equipment.

22. To summarise Rapier's performance. Land operations succeeded in spite of the valiant effort of the well handled Argentine Air Force on which Rapier inflicted crippling wounds. What other land based system can make a claim of that nature?

23. There were other air defence systems which played lesser but important parts. Sea Cat was widely fitted to ships of the Task Force and, although an obsolescent system and firing many missiles, still brought down six aircraft. Machine guns and other small arms accounted for a few targets and Blowpipe, a manportable weapon, saw successful action for the first time. The poorest result came from the 4.5-in. guns which were almost universally fitted to the

Fleet but shot down only one aircraft -- evidence of the advantage of air defence missiles as compared to guns.

24. A few words about Argentinian air defence which had an important part to play in their plans in countering the close air support provided by Harriers who delivered bombs, rockets and cannon fire with considerable effect, and also undertook day and night reconnaissance. The Argentines had modern radars on the Falklands which provided them with good early warning. For their local air defence they deployed a selection of surface-to-air missiles including Roland, Tigercat and Blowpipe, as well as a large number of Oerlikon Rheinmetall 35mm and 20mm air defence guns. It was basically a gun defence and the results reflect that: five Harriers lost, we believe four to guns and one to a missile. The makers of Roland were claiming seven aircraft. Possibly seven missiles were activated by their proximity fuzes but if seven aircraft came down they were not seven of our. The Argentine has not claimed any hit for Roland. The result of the Argentine air defences must have been disappointing to them. Some five hundred ground attack sorties were flown by the Harrier so that the score of five down represents an attrition ratio of only 1%. The 30mm guns clearly were not a great success and the Roland SAM, with plenty of time for battle preparation, missed its chance.

25. What lessons should we remind ourselves of? The relative importance of the conclusions we draw will vary between armed forces, depending upon the threats, present weapon inventories and doctrines. I doubt if any lessons are new although as I said earlier some are seen in a new light. However, some conclusions must surely have universal application.

26. The most obvious lession demonstrated was the need for a layered air defences in depth. Different armed forces would adopt different means of achieving this but this essentially requires that the defences be primed by early warning and be based on a range of weapon systems covering all heights and distances. Air defence aircraft must have weapons which can look down and shoot down. Had Skyflash, the shoot down look down weapon declared fully operational in NATO, been available on the Harrier, even fewer Mirages and Skyhawks would have returned.

27. The weapon systems available must enable commanders to exercise strategic and tactical flexibility. This requirement must be reflected both in initial weapon design and subsequent industrial support. In this latter area the campaign showed clearly the need to modify systems and software rapidly in the light of operational experience. The increasing influence of electronic warfare makes intimate industrial support increasingly important.

28. The need was underlined for the proper integration of ship and weapon systems. There needs to be a single design authority from the design stage through introduction into service and subsequent development and modification.

29. Sea skimmers are an important element of maritime operations and an effective defence against them is essential.

30. Satellites were not a part of the actual air defence but it is worth noting that they are an essential part to the command and control of such operations.

31. The Falklands reminded us that the calibre of the men is at least as important as the quality of their weapons. The corollary is that the best men deserve only the best equipment.

32. Missiles are more effective than guns. There may be a case for some guns but the surface-to-air defence must be missile based.

33. Finally, all countries invariably rely upon allies even when going it alone. The Falklands was no exception. However, political freedom in the use of military force requires an indigenous ability to maintain one's equipment in action even when that equipment has been purchased abroad. For example, manufacturing missiles under licence in the same way as Rapier missiles will be made in the United States for use by US forces.

34. To sum up. There was, in spite of the unusual scenario of distance, logistics and climate, a comprehensive air defence framework under which the Task Force succeeded. (Of the figure of 54 - the BAe score - half goes to Harrier and half to surface-to-air missiles.) It was an air defence in depth with equipment of the best quality in the hands of highly trained and motivated men. It constrained the enemy

when he was miles from his quarry and reduced his chance of survival to about one in three when he attempted to close with his target. All of the systems proved themselves in battle. The performance of weapons which have yet to face that test reamins hypothetical, while equipment which has performed well in combat and sometime improved in light of operational use, is equipment in which the user can place confidence.

AIR DEFENSE LESSONS OF THE SOUTH ATLANTIC WAR

by

General Sir Frank King, GCB, MBE
Military Adviser, Short Brothers Ltd.

At the beginning of the South Atlantic War, Short Bros. of Belfast were in an embarrassing position in that both their missiles and freight aircraft were being used extensively by both sides.

ARGENTINA

Seacat - in use by the navy.
Tiger cat - deployed to protect Port Stanley airport.
Blowpipe - more recently purchased for the low level air defence of the army.
Skyvan freighters - used for the deployment of troops and stores from the mainland.

I might add that the Foreign office readily granted the necessary export licenses because at the time they could visualise no circumstances in which Britain would attack the Argentine. Nor could we.

BRITAIN

Seacat - had long been in extensive use by the Royal Navy.
Blowpipe - as a complement to RAPIER, had for the last eight years provided the army's low level air defence.
Belfast freighters - once used by the RAF, had to be leased from a civilian operator to airlift loads which were too heavy or too bulky for the C130, Hercules.

Notwithstanding this representation, detailed information from the battlefield has been hard to come by. The returning heroes of the Task Force quickly departed on a well earned leave. The detailed deliberations of the MOD will not be ready until mid-October. Press & TV coverage was, of necessity, scanty. Naturally there has been no contact with the Argentine. However, the Minister for Equipment has written a grateful and helpful letter to the Company, designating the claimed hits and kills of our weapon systems and from this and other sources it is possible to draw certain general conclusions.

First, Seacat. This is by modern standards a relatively cheap system used by 20 navies of the world. It finds a missile with a blast warhead of 17 kilograms out to an operating range of about 6 kilometres and a ceiling up to 10,000 feet. In other

words, it provides self defense against the relatively short range, low level air attack, although it can also be used in a surface-to-surface role.

It normally relies on a visual acquisition of the target and the missile is then guided to coincidence by a visual, line of sight technique. However, it can also be integrated with a fire control system to provide automatic acquisition and tracking.

Six kills were claimed by the British Navy, probably in coastal waters, using visual acquisition and steering, when radar warning had not been achieved. The targets were almost certainly a mix of Skyhawks and Mirage. It is understood that no technical problems emerged. This is much the sort of performance that we expected and no significant lessons arise. No reports have reached us of Argentinian use.

Tiger Cat is best considered as a land based version of Seacat with the distinct advantage that with its 3 missile launcher system, it is light and mobile, as a 2 Land Rover & Trailer load. It was deployed by Argentina in the defense of the Stanley airfield and was active in the early part of the campaign. Certainly it accounted for at least one Harrier but user reports are not to hand and no lessons emerge.

Blowpipe was used by both armies. It is a shoulder-launched missile of 14 kilograms, with a 1-1/2 warhead and oprates to a range of 3-1/2 to 4 kilometres. It is compact, light and simple to operate by one man. It is currently in use by eight other nations. It has a visual guidance system, controlled by radio signal and is virtually impossible to decoy or jam.

When it discarded the 40mm LAA gun the British Army looked primarily for three qualities in its replacement:
(a) a significant saving in manpower;
(b) far greater mobility on the battlefield;
(c) an improved chance of hit.
Blowpipe handsomely fulfills these needs.

However, when it was developed, two possible options were open. The first was to follow the US/Russian lead of the infra-red seeking qualities of Red Eye or Sam 7. These home onto the hot gaseous effluent from the tail of a receding aircraft and used well known and well proven technologies. But they have three substantial drawbacks:
(a) Psychology of 'tail chasing' given the relative inability to attack a target until its departure from the scene of action;
(b) the resultant extravagant use of men and launchers when defending a key point;
(c) ease of decoy c.f. Israeli planes' use of flares at

Beirut. The British army therefore chose the second option by producing an interceptor missile. This is a more difficult technology which requires a little more training. How did it work in the Falklands?

The first action was afloat. Some aircraft penetrated the area defense scheme and attacked individual ships. Marines aboard fired six missiles; more importantly, they also claim three kills - two Mirages and a Skyhawk.

This was of great interest to our company. For some time now we have urged the use of Blowpipe for the defence of small ships, minesweepers, patrol boats and the like. Whilst one can understand the reluctance of navies to allow marines to blast off from the shoulder, from the decks of their ships, this is by no means necessary. Light stabilized mounts could easily be stored in dockyards and bolted to the deck of any ship as it sailed to an area of danger. A lesson which must now be engrained in every sailor's heart is that however good or elaborate an area defence plan may be, some planes will always get through even if airborne early warning is both available and efficient. The self protection of individual ships then becomes of prime importance, and in saying this I am thinking not only of Warships. What about the QE2 and those expensive container ships? Blowpipe could bring cheap and readily available assistance in this role. Of the land operations, against which air attacks were less numerous or savage, I can best quote the minister's letter. He writes: - "'It is already clear that Blowpipe played an important part in the Falklands campaign.' 'It provided a most effective defence of ground forces against low level air attack. It was deployed in the San Carlos and Bluff Cove beachheads and in support of operations further inland. With one exception, all aircraft which attacked ground forces flew at less than 100 feet, using the ground contours. They were seldom exposed to surveillance radars until at a maximum of four kilometres range and there was often very little warning of their approach. This problem was exacerbated by bad weather, low cloud, mist, low light levels in valley bottoms for the last two to three hours of daylight, and difficulties of effective siting. Most of the targets against which Blowpipe ashore was used successfully were crossing and receding, the most difficult to engage. Despite all this, preliminary analysis indicates that Blowpipe achieved eight hits.'"

From the events of Bluff Cove alone I feel that two important lessons emerge. The first is that we were probably right, in the British army, to go for the interceptor type missile. Attacks on 2 Para at Goose Green, where advancing Pucaras were shot down, also highlight this fact. The second is that if a missile operator has habitually to engage targets flying at

high speeds at less than 100 feet, he will rarely have more than 20 seconds in which to locate, acquire, and engage his target. Thus if weapons of this type are to operate at mzximum efficiency, the weapon handlers need urgently some simple form of battlefield alerting advice which will at least tell him from which direction aircraft are approaching.

We have had a report, through a third and friendly country, that the Argentines were also vey well with Blowpipe. They claim to have destroyed two helicopters and one Harrier. The latter has been confirmed by the pilot.

Finally, my overall impression is this. For some years soldiers have been debating the vulnerability and the usefulness of tanks, largely because of the development and deployment of large numbers of light, many portable anti tank missiles, rockets and other weapons.

It is clear that sailors must now look critically at the use and the future of surface ships.

What about airman? In the last war Britain manufactured over 20,000 Spitfires and a similar number of Lancaster bombers. Today, its front line strength of aircraft is about one percent of that combined total. Spitfires cost $70,000.00. The modern aircraft nearly 300 times that amount. This escalation has ~~been~~ largely brought about by missiles and the growing improvement in ground to air defence. Yet missile design is still an infant science. It predictates the need for the development by air forces of good area weapons, as opposed to point systems and a very critical look at the future role of the aircraft. It is all splendid news for the ground targets and in this context I think particularly of the men who won the battle of Waterloo -- the good Infantry soldier. He, to me, represents the vital growth sector of the very mixed and complex military economy. And, given my own military background, I naturally regard the Parachute Regiment and the SAS as possessing the quintessence of infantry skills.

HELICOPTER OPERATIONS IN THE SOUTH ATLANTIC WAR

by

Major General John M. Strawson, CB, OBE
Senior Military Adviser, Westlant plc.

You may remember that when one of Napoleon's marshals, I think it was Lefebre but it might have been Augereau, captured a town during the Peninsula War, he blew for all the inhabitants, and having assembled them, said: "You'll be very glad to hear that I've come to bring you liberty, equality and fraternity, but don't get too excited about it, for the first one of you to put a foot wrong, I shall have shot". And in a similar sort of way, we would do well not to get too excited about what happened in the Falkland Islands, and not be too hasty about drawing lessons from it, or we too may start putting a foot wrong with comparably disagreeable consequences.

What exactly do we mean by lessons? Lessons for whom, in what context, in what theatre of operations, in what time scale? It is perfectly easy to note that this or that weapon system did well or badly, and then to exploit or correct success or failure. It is equally easy to note gaps in military capability under conditions prevailing in the South Atlantic, and then fill these gaps in current or future equipment. All these things are easy. But we should be wary of extrapolation in totally different circumstances. We should be worried about the effect the Falkland Islands operation is likely to have on British or NATO defence policies and defence industries. Indeed the important thing at this stage is not to rush into drawing too many conclusions, but to be sure that we are asking the right questions. Many of us, of course, in British industry have put questions to the Ministry of Defence, and we await answers to them, following the Ministry's initial report on equipment performance. No doubt. Lord Franks will be asking some questions too.

There is, however, one enduring lesson which has been evident from former conflicts and which this one simply reconfirmed. It is that given a supportable political objective and broadly adequate military resources -- given this, what is decisive is the quality, character, skill, courage, determination, training and leadership of the people involved. A la guerre, observed Napoleon, les trois-quarts sont des affaires morales.* In war three quarters of the game is made up of moral considerations.

* (La balance des forces reelles n'est que pour un autre quart).

Yet, I might do well here and now to ask myself three questions -- first, what was the military requirement for the Falkland operation? second, how did helicopters help and how did they perform? third, what may we conclude from it at this stage? As for the first question, the requirement for successfully conducting military operations is almost always the same. You must have five things -- information, fire power, mobility, communications and supply, all wrapped up in proper command and control. By mixing these ingredients appropriately, you arrange for your own security, and so order your own application of violence that you dismay and dismember your enemy.

And the helicopter helps to do all these things for you. It acquires information, has its own unique coalition of mobility and fire power, is a superlative communicator, a logistic vehicle in a class by itself, and indispensable for command. Like Cleopatra, the helicopter is something of infinite variety. Whether it is capable of giving quite so much pleasure may be doubted. And to pursue the Shakespearian parallel for a moment, just as Falstaff is not only witty in himself, but is the cause that wit is in other men, so the helicopter not only itself possesses all the essential military qualities which I have listed, but it enhances their possession by other instruments of war.

What was it for instance that gave the fleet in the South Atlantic such freedom of manoeuvre? It was the anti-submarine and anti-surface vessel screen provided by helicopters. What was it that lent such speed, fire-power, communications and supply to the assault force? It was the shp to shore capability of the helicopter. What enabled 105mm guns to move to the right places and keep firing? It was the helicopter. What distributed stores on passage, landed clandestine reconnaissance parties and action groups, deployed its ESM devices rescued survivors? The list is inexhaustible. And just think what might have been the benefit of AEW helicopters -- two of which are now on their way to the Falklands, embarked in HMS Illustrious! In short, the helicopter is not just itself an agent of security and violence. It enables other sucn agents to reach their full potential. And if I wanted to sum up in a single word what it was that the helicopter did for the Task Force, I would say that it provided momentum, momentum from the moment the Task Force left these shores until the moment of victory, momentum from start to finish, momentum of all types and kinds, at sea, logistically, in attack, in rescue, on land, a momentum that was both irresistible and triumphant. Just as brevity is the soul of wit, so momentum is the soul of successful offensive operations. You cannot do without it.

I have answered my first question and I have partially answered my second question, but to illustrate and give some feel for wie es eigentlich gewesen ist, what it was actually like, here is a short film, which does not attempt to be comprehensive but is, I trust, representative of the way helicopters helped the Task Force do the three things it had to do -- get to the Falklands, get ashore, and get Port Stanley, much of which, as you know, was carried out in the most appalling weather.

I hope that has given you some idea of the helicopters involved and the sort of things they did. I might summarise it like this:

On passage to the Falklands, apart from vertical replenishment, communications and training, the helicopters' great contribution was in providing so effective an anti-submarine screen by day and night in all weathers that there was no enemy submarine interference. As the Director of Naval Air Warfare put it: "The Anti-Submarine squadrons flew continuously in all weathers to keep four aircraft on task. This involved flying at four times the normal rates."

Nor should we forget that both on passage and at the Falklands, the Naval Lynx provided totally successful anti surface vessel protection and all the Sea Skua missiles fired -- I believe it was six - hit their targets.

While ASW and ASV operations continued throughout, perhaps the most dramatic contribution -- because these activities were packed with action - was that of helicopters before and during the assault on the islands themselves. It is no secret, I think, that helicopters flew in our Special Forces at very low level, from well out at sea, in darkness and frequently in appalling weather. And on the results of these patrols depended, of course, the very success of the assault.

And during the assault itself, it was, as I have indicated, the helicopters which provided and maintained the all-important momentum. On the first day alone seven Sea Kings lifted something like a million pounds of equipment and stores, and some 500 to 600 troops. Their serviceability was astounding, they were used continuously at maximum performance, and 100% availability was normal.

Of course, we must not forget the other side of the picture -- the damage and casualties sustained by our ships, and the instant response by helicopters in rescuing survivors -- either from life rafts or from the freezing water; or in the case of Sir Galahad from the forecastle in dark smoke with ammunition exploding all round them. The brilliant performance of the machines was more than matched by the skill and valour of the

men operating them.

We must remember too what has been said about the sheer speed of getting injured or wounded men, whether from action at sea or in the land battle, to medical care. As the medical men have themselves reported -- the key to saving lives was rapidly moving these casualties to surgical facilities. It simply could not have been done without helicopters.

And then there was the land battle itself -- day after day the Sea Kings leapfrogged soldiers, 105mm guns, ammunition, equipment and stores closer and closer to Port Stanley. This air mobility and re-supply was crucial to the relentless progress with which the enemy's will and ability to resist was ground down until it ceased to exist altogether.

Although the Sea King may have been the 'star of the show', as (Parliament Under-Secretary for Defence Procurement) Mr. Geoffrey Pattie has put it, we must bear in mind too all that the naval Lynx did, without a single loss, and what the Army helicopters were up to. The Scout, as the Royal Marines and Army Air Corps have reported 'performed excellently throughout the operation in the close support role, reconnaissance, resupply of ammunition, deployment of patrols and casualty evacuation. Its reliability was outstanding'. So also was that of the Gazelle in its liaison and casevac duties.

There is in all this perhaps, as Hamlet's mother pointed out, the danger of protesting too much, so I might do well to bring this part of my talk to a close by reminding you of what the Defence Secretary, Mr. John Nott, said in the House of Commons on 1st July:

> 'During the whole Falklands operation, our helicopters all performed magnificently. They flew round-the clock in all weathers to provide ASW support for the Task Force, to carry out reconnaissance and to carry troops, stores, supplies. The assault helicopters were most successful in the ground attack role...and it was clearly demonstrated that helicopter support is vital in the land battle. It is difficult to see a situation in which there could ever be too many helicopters available for our forces.'

Two of my three questions have no been disposed of. As for the third one, conclusions which we might reach, everyone, I believe would agree that without the unique capability of helicopters -- and getting on for 200 of seven different types took part -- it would have been impossible to re-take the

Falkland Islands with such expedition and economy, for their contribution to protecting the Fleet, mounting the assault from ship to shore, and moving men and material about on land, was indispensable.

The retaking of the Falkland Islands was characterised by speed and improvisation, characteristics inherent in the helicopter itself. It was an exercise in rapidly deploying and using force, and the helicopter's versatility in maintaining momentum showed that it is not just a jack of all trades, but a master of all trades as well.

The broad conclusions relevant to helicopters seem to me to be these:

1) how vulnerable a modern navy is without sophisticated ASW equipment -- hence for the Royal Navy, how essential anti-sub carriers and the Frigate Type 23 and its EH101s;

2) how vulnerable a modern navy is to air attack -- hence the AEW requirement plus enhanced air-to-air weapons, in both of which the helicopter has a part to play;

3) how easy it is to adapt non-naval ships to accept helicopters;

4) how well and continuously helicopters perform in appalling conditions, exceeding flying and maintenance limits time after time;

5) how essential they are in life-saving casualty evacuation and how infinitely effective in rescue;

6) how gratifyingly light losses have been from any cause -- enemy action, bad conditions, accidents etc. but --

I will not go into detailed technological data. This will all emerge from the users' and manufacturers' analyses. My concern here has been to underline how the helicopter enables our navies and armies to move about the world to defend The Queen's interests.

a. what heads my list of future procurement is not a piece of equipment. It is that we in Britain should perpetuate the system which produces such men and such leaders for our Armed Forces;

b. secondly, just as Robert Bridges once observed that 'stability is but balance, and wisdom lies in masterful administration of the unforeseen,' so we might say that there cannot be much wrong with the

balance and wisdom of Britain's Armed Forces, designed primarily for other purposes, which can so masterfully restore stability in a contingency, which, if not unforeseen, was certainly unprepared for:

c. thirdly, since the only way to predict the future is to have the power to shape the future, may I suggest to those who have power to shape future defence policy to make sure that we preserve the balance which our Armed Forces at present enjoy. And if you want to know how, may I commend to you two books, which without power do predict the future. I refer, of course, to...

d. lastly, the recipe for keeping out of trouble... I should have thought it might be possible to achieve that position on the Falkland Islands...add a fourth point...If we decide, as I assume we will, to hang on to those Islands, and we wish to go on keeping out of trouble there, then apart from a number of other things, we shall need plenty of helicopters as well.

¡¡Bravo.. bravo!!

THE USE OF ARMOUR IN THE FALKLANDS

by

Brigadier Harry Hopkinson,
Alvis Limited

We are now well into the second day of this timely and valuable study of the South Atlantic operation. But before I talk on armour, I must say that in such an August international assembly, I have been tempted to throw away my notes, which deal with a small but significant part of the land campaign and have a rethink.

We have heard of Strategy and Command, Naval, Air, missile, helicopter actions. Therefore perhaps there is merit in following up "the whiff of the battle" mentioned by General Sir Frank King with his Paras and the Marines "yomping" -- with the use of armour -- which started off with a large "Question Mark" and finished with great success. Having proved that it could more than cope with the weather -- unique terrain -- the multi charges of command -- and yet again armour showed its versatility, flexibility, mobility and fire power capability -- Scorpion became the vehicle for the terrain.

I am trying to avoid a sales pitch for obvious reasons, but this campaign did allow us to test out a vehicle we have been using with AMF and which we have on offer to US Marines and Army for their multi-purpose RDF.

There is a crew commander here today, who will be pleased to answer questions at tea time as did the crew of the Falklands Scorpion flown to Washington last month.

Initially it had been suggested that at least two squadrons of vehicles should be sent out to the Falkland Islands, but because of ship space availability this was reduced to two troops, from the Blues and Royals, consisting of two Scorpions and two Scimitars in each troop and one Samson vehicle for recovery but mainly used for casevac and ammunition humping. There was indeed insufficient time to give the vehicles more than the standard mobilisation check before departure. Extra stowage boxes were attached to the front and the sides of the vehicles to cope with arctic equipment.

From the beginning many people doubted the potential of the these light, tracked vehicles in the Falklands and indeed an Engineer study virtually stopped their initial use, until the bridgehead was fully achieved, because the maps were marked with numerous impassable areas. These areas were later proved

to be perfectly adequate for these veicles, which have only 5 lbs per sq. in. ground pressure. Within a short time, it was clear that the concept was fully acceptable and the vehicles covered every form of terrain from mud to boggy swamp and basaltic rock.

At Ascension Island, en route to the Falklands, the crews and vehicles met up and the guns were tested, including USPATEC ammunition for the 30mm Rarden gun.

The initial move to the beachhead was on HMS Fearless and the vehicles were then transferred to LCUs to support 40 Commando in the San Carlos Settlement landing and the Two Para landing at Port San Carlos later, on the same day vehicles were used to ferry off beaches but opportunities to use the troops in "follow up" action were not taken because of too many unknowns!!

The initial tasks for the troops were direct and indirect fire support on known OPs in the surrounding hills, and they gained their first taste of the rough going and the recurring problem of wire fences wrapping themselves around the vehicle sprockets. Earlier plans to lift CVR(T) by CM-47 Chinook helicopter, which is of course feasible, and move them into enemy territory had to be ignored with the loss of the containership Atlantic Conveyor and most of the Chinooks. Attacks by enemy aircraft on ground targets were beginning and a troop leader gave tuition on the principals of shooting at low driven grouse and soon a hit on a Skyhawk by 30mm Rarden was acknowledge. Other tasks included vehicle convoy escorts for Volvo Snócat by day and by night and moving the infantry on the AFV.

On the rare occasions when there was bogging down in 105mm shell holes, etc., the vehicles were quickly extracted by the superb kinetic energy tow ropes. In these early days the vehicles came under fierce artillery and mortar fire, but no direct hits were sustained. The same applied -- luckily -- when the 105mm recoiless gun and a rocket launcher were used.

After providing a taxi service to return members of Three Parachute Bn. to Estancia House, both troops moved south to 5Bde at Bluff Cove. This involved a journey over the central range of hills in areas of totally unknown quality, and for the first time there was a possibility of mine fields. Several pockets of enemy infantry were encountered, but the main problems to be overcome were very soft ground, thick fog, steep hills and an icy cold wind. This move, expected to take 36 hours was completed in six hours with nothing worse than one thrown track and a broken sprocket, both of which were dealt with swiftly as the vehicles had been carrying spare track, spare idler, spare roadwheel and spare sprockets.

About 8 June, there were numerous occasions when the vehicles had to engage low flying aircraft which came in in waves and fire was put up from the Scimitar 30mm Rarden and GPMG, which were often fired at the same time -- not only aimed at hitting the aircraft, but also pushing them higher, so that they could be engaged more easily by Rapier SAMs.

At Port Harriet a variety of tasks in support of the Welsh and Scots Guards were carried out and then mine fields became a definite hazard. The two troops were frequently used well forward under enemy observation and artillery and mortar fire and Three Troop were instrumental in extracting under fire the Scots Guards Recce platoon, who had been compromised in a forward location and suffered considerable casualties. Despite a rough ride and a dangerous night move, the Guardsmen were brought back safely to Bluff Cove. Third troop then when north from Bluff Cove to assault Wireless Ridge and ground conditions worsened with heavy rain. Each Scorpion now carried an extra 97 rounds of 76 mm and each Scimitar an extra 285 rounds which were to be ground dumped but much actually travelled with the vehicles.

The Two Para assault was carried out in three phases with the troop providing fire support on each phase. Earlier recess revealed some armoured vehicles, probably LVPT's down behind the ridge and as the troop was manoeuvring its position to engage with PATEC ammunition at a range of 800 metres a sudden snow storm obscured the target and no further engagement was possible. The support for the first two phases, including firing by night using image intensification sights. Tasks included diversionary attacks, opening up new routes, ferrying infantry and equipment and dealing with casualty evacuation. The 4th troop leader's vehicle hit a 141b anti tank mine which damaged both tracks and some of the roadwheels, having lifted the vehicle 2-4 feet off the ground. The bellyplates were bent, but there was no penetration and the crew evacuated with nothing worse than headaches, which in view of the size of the mine was a lucky experience for an 8 ton vehicle. Then finally we see vehicles overlooking Port Stanley and helping 2 Para on the final entry.

Lessons

It is important that there should be adequate structure of control and command and therefore it is desirable for squadrons to be sent on this sort of operation and not just independent troops who had no spare crews or vehicles. In 3 1/2 weeks the two troops supported each of eight major units and it is not easy to carry out efficient control of resources at troop level particularly when you have movements of one troop across the central range of hills in both directions within the space of

two days. This constant regrouping movement between units, unaccustomed to the requirements of Scorpion, did not help, and fuel and ammo were probably the most difficult items with "yomping" units unprepared for the quantities needed. "A tenuous logistic environment". Mobility far exceeded the expectations of all the senior commanders involved in the operation, and also evoked admiration from many islanders. The experience gained previously in the Arctic with the AMF prepared the crews for this type of role, although one troop commander who jumped from his vehicle, sunk up to his knees in the peat bog and was slightly surprised, because the vehicle had not broken the surface at all. The vehicle reliability, doing an average of 400 miles, gave no particular problems, although batteries did take a bending.

Guns did well and one crew fired 17 boxes in 40 minutes without a stoppage. The crews were disappointed that the LV10 laser sights sent out by USH Avimo did not arrive, and they were believed to have been sunk on the Sir Gallahad. The absence of power traverse was noted, but the II sight was a major success, as the majority of ground target engagements did take place by night -- after all, there were rarely more than 8 hours of daylight in 24 hours.

The basic individual training undoubtedly fitted the crews well for survival and the efficient operation and maintenance of the equipment, and as always the value of troop and crew harmony and teamwork was strongly emphasised and the overall picture was one of confidence in the normal training procedures.

It was surprising that the Argentinian Panhard 90 armoured cars and the LVPT personnel carriers did not give battle, although they were reported bogged outside Port Stanley in the initial stages and then pulled back; the amphibious armoured personnel carriers returned to the Argentine -- Scorpion/Scimitar were always prepared for attack and did not take risks on outflanking moves.

Brig. Tony Wilson the 5 Brigade Commander said: "Our faith in tracks is fully vindicated." Reminding us of the age-old question of "wheel versus tracks" which continues to come up, however, I think it is quite clear from what you hve heard so far that no wheeled vehicle could have driven with any satisfaction under this environment. We have designed a vehicle -- Streaker -- as a result of the Falklands.

There is no doubt that even a little armour gave the commanders the opportunity to gain and maintain the initiative, and to hit the enemy from all directions, to follow up, and to perform a miriad of other functions.

There were undoubtedly useful pointers to the relative effectiveness of professional and conscript forces. But it would be difficult to apply lessons learnt in the Falklands to the European theatre of operation in the absence of any enemy armour or actual anti armour resources, and of course there was no NBC threat either.

To summarise:

a. It seemed unfortunate that more light armour did not go to the Falklands, including Striker/Swingfire and APCs, an armoured ambulance and command vehicles -- despite the increased logistic involvement.

b. It was not possible to try ou the infantry, armour helicopter teaming which would have also eased operations.

c. Yet there was a need and use for armour and improved aids.

d. We have coming along for use on AFV of 8-19 tons: --

60, 75, 90, 105 mm guns with greater lethality.

TRIGAT and other ATGW and GAGW and Air Defence cannons, mostly suitable for carriage on light AFV devices for:

Surveillance -- TV -- Target acquisition -- TAD POLE
Fire and Forget Missiles -- Video displays
Laser Decoys and warning devices
Vertical launchers
Weaponry such as ADATS GA/ATGW -- Copperhead
Plus a myriad of new armours and gadgets

e. We have heard that the prospect exists for the following:

Lightweight Sea Dart SAM (Guardian) -- Tracked vehicle.
Lightweight Rapier SAM -- Tracked vehicle.
Better Gatling Air defence cannon -- Tracked vehicle.

f. All this is fine, but the Falklands ground battle was won by basic well-trained fit conventional infantry with standard vehicles and equipment, and no frills -- surely the main lessons must be

-- keep it simple but effective
-- remember the crew who have to operate in it in all climates and by day and night

Crews who, like the Marines, the Paras, Guards, Gurkhas, Gunners, and Sappers took part in a grim little war, where battle indoctrination and the sights and horrors of death and

injury began early and where it needed training, strength of character, leadership, team-work and loyalty to defy the environment. It was a miniaturised war when compared with recent Middle Eastern struggles, but war it was and I hope we can all -- involved or not involved -- remember that it is the individual soldier who counts in the end. The balance between a success and failure is a narrow one.

SEA SKIMMING MISSILES IN THE SOUTH ATLANTIC WAR

by

Major General Ken Perkins, CB, MBE, DFC
Military Adviser, British Aerospace Dynamics Group

1. In the Falklands operations anti-ship missiles made a considerable impact on both the media and their targets. However, they are nothing new. The Kamakazi aircraft in the Pacific in World War II was a forerunner, it being recognised that an aircraft chairs at the deck was a more difficult target to defeat than one flying a bombing profile, and there are still lessons in from the Kamakazi and to these I shall return. However, Kamakazi pilots tend to be in short supply and the tactic was restricted to the Japanese and did not survive World War II. It was not until technology permitted the accurate flying of a missile a few feet above the water and guidance systems able to cope with the difficulties at that height that ships again became vulnerable to missile attacks from every quarter and every angle from sea level to the vertical. The Falklands campaign has highlighted the enhanced threat of the sea skimmers compared to other missiles but in examining the sea skimmer today and acknowledging its danger we must keep the problem in perspective and not disregard other missile threats. We are already into a game of threat and countermeasure and it will be seen that in some respects the sea skimmer may be less lethal than the diving missile, if you are aware of its approach.

2. It was, of course, to increase the problems of defence that the sea skimmer was pressed into service. Its low flight profile makes its difficult to detect, indeed the launching point, either airborne or shipborne, may well be out of radar view of the target. Its small radar reflection, and proximity to the water, pose detection problems all the way in and may leave too little time for an adequate reaction by the defence. However, depending upon its method of homing the sea skimmer is, perhaps, more easy to decoy than the missile diving at an angle and approaching at a supersonic speed, sea skimmers in general being just subsonic -- a subsonic missile having more manoeuvreability than supersonic.

3. Let us look at the missile firings in the Falklands campaign. The first missile fired was Sea Skua, a helicopter launched weapon which can be operated from any helicopter which has a suitable radar; its mode of

operation is to drop vertically, ignite and then skim the surface, homing in a semi active mode by means of radar illumination provided by the helicopter. Sea Skua was just being introduced into service and had not even been declared operational when the Task Force sailed. Yet on an inky black night, in a storm and with a high sea state, the first operational firing sunk a patrol boat and crippled another. During the Falklands operations seven missiles were fired and seven hits scored. Sea Skua was designed to operate against patrol craft and similar sized vessels and therefore needs to be set to run very low in order to strike the hull. There are three height settings and a high sea state which requires the missile to be programmed to run at the high level provides some protection to small craft. Nevertheless, Sea Skua, having sunk one ship, crippled all the other targets at which it was fired; having coped in the mountainous seas of the South Atlantic it will surely be seen as a considerable menace elsewhere.

4. Exocet hit the headlines to a greater extent than Sea Skua simply because the media were present and the Royal Navy suffered its first sizeable loss at war since 1945. This was when Sheffield, detached on radar picket duty, went down. This Exocet was launched from a Super Etendard at a time when the British were seemingly unaware that Argentine possessed this missile in an operational form. The ship concerned was apparently aware of the presence of aircraft at a considerable distance but was alerted to the missile when it was too late to counter it. In fact the missile did not detonate but, still containing a good deal of fuel, it started a fire in the citadel into which it had smashed its way. Subsequently five more Exocets were fired but, now alert to the threat, no more naval vessels were sunk by this means. One was hit by a land launched missile while taking avoiding action, a glancing blow which removed the helicopter deck, but remained in action. One merchant, the Atlantic Conveyor, was hit by a missile which, successfully decoyed from a warship, sought the nearest large hunk of metal and that unfortunately had no protective measures available.

5. Before considering the tactics of defence let us look at some other typical missiles.

6. Harpoon, a United States sea skimmer capable in its various forms of launch from surface ships, submarines or aircraft. It is a large missile some 4 1/2 metres in length with a range of some 100 km. Like Exocet it is programmed with target data before launch and relies

upon inertial guidance until the seeker head provides active homing in the terminal phase. Its profile is relatively low for the major portion of its flight, it goes to very low skimming as it approaches the target, and the final maneouvre can be a pop up and dive on the target or a continuation of the sea skimming in order to strike the hull. It came into service in the mid to late 1970s.

7. Kormoran, a German air launched weapon of similar vintage and size to Harpoon. It flies at about 20 metres above the surface using inertial navigation until its own seeker acquires the target. At a few kilometres from the target the missile descends to about 4 metres.

8. The AS-6 Kingfish is a Soviet missile. It is in reality a cruise missile and I show the picture only to remind the audience that the Soviets possess air launched missiles and that these must now include the sea skimming variety although their details are not generally known.

9. Let us now consider the defence against sea skimmers. The first requirement is early warning, preferably the airborne variety in order that the attacker cannot remain undetected below the radar horizon as seen from his quarry. Bear in mind that the target data may be acquired by a source other than the platform which launched the missile and the data passed, for example, from a reconnaissance aircraft to an attacking aircraft or ship. With adequate early warning the attack will often be defected before missile launch.

10. If the missile is successfully launched it is likely to be well on its way before detected. At this stage both passive and active methods of defence can be employed. Chaff, and a great deal was expended in the South Atlantic, can be fired in order to seduce the missile. It goes up in a cloud around the ship which then steams out from under, leaving the missile, if it has been fooled, to fly through the chaff in a bemused fashion. Other methods include decoys lowered beneath helicopters. ECM also comes into play, although some seeker heads will automatically home on jam. Dual mode heads, Radar and IR, will make seduction more difficult.

11. Engagement of the missile in order to destroy it will depend in the first instance on defensive missiles. A number of defensive missile systems are now being converted into anti-missile systems, having been designed originally for anti-aircraft purposes. The

conversion poses difficult fuzing and altimeter problems. One system is in existance, and one only, Seawolf, which was designed from the start as an anti-missile system. It was not in fact tried out against aircraft until the Falklands when it shot down three of a wave of four Mirage. An anti-missile system needs three crucial characteristics: fully automatic because there is not time for manual operation, deadly accuracy and the ability to cope in any quadrant -- vertical down to sea level. Seawolf does all this -- no man in the system, it hit a 4.5 in shell in flight during trials and although optimised for Russian missiles with a diving profile, it has been programmed for Exocet. A good missile system such as this should cope from about 6 kilometres out and destroy the missile at a distance when debris will not fly forward into the ship. It is recognised that the threat is increasing, here are some considerations, and that a high sustained rate of missile fire will be needed. This takes us into vertical launch with considerable advantages.

12. A last ditch gun defence is seen by some as essential. A gun can only be last ditch and even if it hits the missile it may, at short range, not prevent the inertia remaining in a disintegrating missile from carrying it into the ship. The Kamakazi in the Pacific in World War II, although repeatedly hit, often continued into their target. I suppose it is better to die with the rattle of a friendly machine gun in one ears than in silence!!

13. The potential of the sea skimmer has not been lost upon small navies. A small power in the emerging world now has a reasonable chance to dominate its own waters even in face of a considerable threat. Given a coast line with inlets and thus some cover a missile armed patrol boat can dominate a considerable area providing there is the means to acquire the targets. It could use its own radar but would be at a disadvantage against a missile ship with a higher mast head and thus a larger radius of acquisition. The majority of emerging navies as yet do not have the sophistication to pass data from reconnaissance aircraft to patrol boat, but that will surely come.

14. Before drawing some conclusions let us look a little ahead. Exocet was relatively easily seduced. No doubt Aerospatiale are now working on that failing. Here is a missile system in development which will come into service in a year or two and will not be amendable to seduction : Sea Eagle. At present designed for air launch, a surface launched version is also in

development. It will be capable of assimilating data to make it selective as between targets, for example, disregard the first two ships you pass, take the third. Steer a crooked course, pop up at intervals to adjust inertial navigation. And so on.

15. Finally, consideration of the sea skimmer and defence against it leads to much the same lessons as we saw when considering air defence:

a. The need for all round defence in depth. This requires early warning and a range of weapon systems covering all heights and distances. To cope with the low flying aircraft about to launch a sea skimmer, air defence aircraft need look down shoot down weapons such as Skyflash. (BAeDG weapon only one so cleared in world.)

b. The weapon system must permit commanders to exercise flexibility, a requirement which must be reflected both in initial design and subsequent industrial support. The Falklands showed clearly the need to modify systems in the height of a changing threat.

c. With such an increased threat there needs to be flawless integration of ship and weapon systems.

d. The importance of sea skimmers and defence against them.

e. Men are more important than their equipment, the latter will realise its potential only in the hands of true professionals.

f. Finally, as a missile defence anti-missile missiles are more effective than guns are.

THE FALKLAND ISLANDS CAMPAIGN -- LESSONS FOR NATO

by

Sir Patrick Wall MP, a member of the British Parliament's Select Committee on Defence and a Vice President of the North Atlantic Assembly

The Falkland Islands campaign is unique in the history of amphibious warfare. Unique because of its unexpectedness, the distance and conditions under which it was fought and the speed at which it was concluded. It holds many lessons for NATO and even more for the Warsaw Pact.

Determined political and military leadership is the key to success in war. Mrs. Thatcher was unique in her determination to rescue the Falkland islanders from foreign invasion. She was supported by some of her Cabinet and by the majority of the Conservative backbenchers in Parliament. Unlike Suez, her leadership and their enthusiasm converted the remainder of the Cabinet, the Party in Parliament and even the Opposition!

The country responded to this leadership, the popularity of the Prime Minister rising from 35% to a peak of 52% and her Party from 31-1/2% to 46-1/2%.

Even though the campaign was fought outside the NATO boundaries, Britain's NATO allies responded magnificently not only in cutting off all arms supplies to the Argentine, but by imposing economic sanctions. The USA, in the person of their Secretary of State, undertook the thankless tasks of negotiating a settlement in accordance with the UN Resolutions, and when this failed threw their full weight short of active participation behind Britain.

I propose to divide this paper into three parts:

1. Preparation and passage
2. The amphibious assault
3. The land campaign

Preparation and passage

The Royal Navy mobilised 30 warships supported by some 70 RFAs and merchant ships from the liner "QE 2" down to tugs and minesweeping trawlers.

The outstanding achievement is that the main body of the Fleet sailed prepared for war in three days. Dockyard workers, some

because of naval cuts with redundancy notices in their pockets, worked night and day to prepare "QE 2" and "Canberra" as troopships with helicopter platforms. Their opposite numbers in Gibralter dockyard performed the same task for the conversion of "Uganda" into a hospital ship.

The relative strength of the British and Argentine forces were on paper --

	Argentine	Britain
Aircraft carriers	1	2
Cruisers	1	Nil
Destroyers (missile)	2	7
Destroyers (gun)	6	Nil
Frigates	3	5
Assault ships	Nil	2
Submarines (nuclear)	Nil	3
Submarines (conventional)	4	Nil
Mirage fighters	35 (26)	---
Skyhawk bombers A4	90 (31)	---
Super Etendard attack aircraft	5	---
Canberra bombers	9 (1)	---
Pucara	(15)	---
Sea Harriers		22 plus 6 GR3
Vulcan bombers		2 to 3
Troops	11,000	8,000

NC losses in brackets (total & belco 91)

The Fleet was divided into an assault force consisting of the main warships, the assault ships and "Canberra" and the follow-up force of "QE 2" escorted by a number of warships together with Nimrod ASW aircraft.

In any conflict with the Warsaw Pact in Europe, the use by NATO of warning time which could be as short as three days, is vital. During this period reinforcements must arrive by air from the US and Canada, troops in the North, Central and Southern Fronts, moved up to their battle stations, straits mined etc. The fact that the British with no warning managed to mobilise their Fleet in three days, will be a lesson to the leaders in the Kremlin that they cannot take aggression for granted.

Another lesson is the rapid mobilisation of commercial assets including the immediate requisitioning of container ships to transport Harrier and helicopter reinforcements, tankers, store ships etc. Some years ago the North Atlantic Assembly urged all governments to enact legislation to enable them to take up civilian ships and aircraft without the declaration of a state

of emergency -- some NATO governments still have not obtained these essential powers.

The Falkland Islands demonstrated the important role of the Merchant Navy and the risk Britain and the US run by allowing the continued run-down of their merchant fleets, together with the transfer of ships to flags of convenience with foreign crews whose legal position in an emergency would be very doubtful. It also illustrates that though the day of the armed merchant cruiser is over, the auxiliary ASW aircraft carrier will be of great importance in any future Battle of the Atlantic.

As all the ships had some 8000 miles to cover before the campaign could commence, Ascension Island formed an essential base, both for ships and aircraft. Any necessary sorting out of stores between the various ships was carried out by helicopters, both at sea and off Ascension Island. Britain should note that the disposal of islands in the Indian Ocean and elsewhere may prove to have been a costly mistake especially at a time when the United States is acquiring the use of such islands as bases for their Rapid Deployment Force.

The value of SSN was proved beyond doubt even in the conventional war when two or three British submarines bottled up the Argentine fleet in their ports. After the sinking of the "Admiral Belgrano" by HMS Conquerer, the Argentine fleet, who possessed some modern warships, played no further part in the war. Their mining effort in the Falkland was also of little value.

The Amphibious Assault

The current doctrine in most navies is that amphibious assault cannot be carried out against active opposition or without command of the air.

The British Special Boat Section (Royal Marines) and the Special Air Section (Army) carried out both reconnaissance and raids in various parts of the islands prior to the assault. Even they did not expect the actual landing to be unopposed from the shore.

During the assault, the Fleet suffered damage from Argentine air attacks which were pressed home with great gallantry. If the Argentine planes had managed to put out of action either of the two carriers or the two assault ships, the landing might never have taken place.

The Task Force's main handicap was the lack of AEW, the Nimrod IIIs will not be operational until 1983 or later and the old Gannets were phased out with the scrapping of HMS'Ark Royal'and'Eagle'. As a result, destroyers had to be risked on radar picket duties -- hence the loss of HMS 'Sheffield' and 'Coventry' to an Exocet missile and bombs respectively. 'Sheffield', the first warship to be lost to a missile since the sinking of the Israeli destroyer 'Eilat' in 1964, was caught by a sea skimming missile discharged at a 30 mile range from a Super Etendard aircraft. It is said that the warhead did not explode and that the rocket motor did the damage. It is also said that 'Sheffield' had her long range radar switched off due to satellite transmission.

Two frigates were lost and many warships damaged in the Falkland Sound by bombs. The Argentines had two British built destroyers armed with Sea Dart missiles and therefore knew the system's envelope, and flew low which made them difficult targets but also meant that many of their bombs failed to arm.

British SAM included Sea Dart in four ships, Sea Wolf in two and the older Sea Cat in many frigates. They are credited with eight, six and five aircraft respectively. Meanwhile the Harriers had shot down 27 to 31 Argentine aircraft without loss. 5 Harriers were lost by ground fire and 4 by accident in ~~appalling~~ weather conditions.

The two Assault Ships with their landing craft had been earmarked for the scrap heap but were retained, partly due to parliamentary pressure, prior to the campaign which could not have been fought without them.

The gun once again came into its own, most ships' gun barrels being worn out by the number of rounds they fired in bombardment.

The 3rd Commando Brigade of Royal Marines and Paratroops formed the assault force and landed from the two Assault Ships and 'Canberra' at San Carlos Bay on 20th May after 7 weeks on passage, phase I being a simultaneous beach assault by 40 Cdo and 2 Para to secure San Carlos and Sussex Mountain. In phase II 45 Cdo and 3 Para secured Ajax Bay and Port San Carlos settlement respectively. Phase III consisted of a landing by helicopters of artillery and air defence weapons to cover the bridgehead. 42 Cdo remained in reserve. These landings were virtually unopposed though the SBS with artillery FOOS had a sharp battle on Fanning Head prior to the main landing, while the SAS carried out diversionary tactics near Goose Green.

The lessons learnt from this part of the campaign are many. The doctrine of non opposed amphibious assault is correct but

amphibious warfare provides unique flexibility, particularly to a sea power. The danger of Soviet amphibious forces in North Norway and Polish amphibious forces in the Baltic must be met by both land and air defences.

AEW and ECM are essential and can be extended by air refuelling. In default of carrier based AEW aircraft, AWACs would have been invaluable but could not be provided as it was American manned. Efforts are now being made to mount AEW equipment in helicopters but it is doubtful if they can gain sufficient height to make this really effective.

The lessons of World War II over the lack of ships' air defences had to be re-learned, luckily the cost, owing to unexploded bombs, was not greater. Sea Wolf, the only existing anti missile missile, it is believed brought down one or two Exocet and so proved itself. Because of its weight, it was only fitted to two warships but a new two or four barrelled launcher of 6 1/4 tons is now being developed which could be fitted to most warships, RFAs and even merchant ships. Meanwhile the American Vulcan-Phalanx gun is being used as a stop-gap. Even machine guns were effective against low flying aircraft but the danger from the Soviet lies in their missiles.

The argument as to whether the Soviet fleet and Naval Air Arm can be contained by the USN's nuclear carriers will continue. These carriers have integral AEW, attack, fighter and ASW aircraft as well as helicopters etc., but they are large targets and have to be protected by cruisers, destroyers, frigates and nuclear submarines. This is a cost that only the super powers can afford. The Falklands has shown that small carriers of 16,000 to 20,000 tons carrying VISTOL aircraft and helicopters can be effective in combatting supersonic aircraft. which less should prove a boost for the new Anglo-American AV8B!

The Land Campaign

The breakout started on 26th May.. 2 Para moved on Darwin and Goose Green where they engaged in a sharp battle with 1,2000 Argentinians (500 had been expected).
3 Para moved on Teal Inlet, 45 Cdo on Douglas, 42 Cdo remained in reserve and was later flown to Mount Kent. 40 Cdo provided the defence of the bridgehead.

After strenuous yomping, 45 Cdo and 3 Para reached their objectives on 30th May. Subsequently 45 Cdo and 3 Para moved on Port Stanley, 45 Cdo attacking and capturing Two Sisters Ridge and 3 Para, supported by 2 Para, attacked and took Mount Longdon by night on 10th June. 42 Cdo captured Mount Harriet.

Fire support was provided by 29 Cdo Regiment of 5 batteries and 4 warships.

The final assault took place on 13th June when 2 Para took Wireless Ridge and the Scots Guards from 5 Brigade had a fierce battle for Mount Tumbledown, and the Gurkhas also from 5 Brigade, took Mount William.

The Argentinian forces surrendered on 14th June.

This land campaign once again demonstrated the extraordinary versatility of helicopters which not only carried troops forward, but guns, ammunition, stores and evacuated wounded. In all 20 Sea Kings (10 Mk2 and 10 Mk 4), 17 Wessex and 1, later joined by 4, Chinooks, (3 more were landed after the surrender) were available. 2 Chinooks and 8 Wessex were lost in "Atlantic Conveyer."

Rapier and Blowpipe formed the main air defence in this stage and have been credited with 13 and 8 aircraft respectively. The 12 Scorpion light tanks of the Blues and Royals together with the 4 Scimitar reconnaissance vehicles and the Samson recovery vehicles proved themselves able to move over marshy ground and were invaluable in the assistance they could give to the advance forces. To overcome the marshy terrain, the Royal ~~Marines took~~ with them some of their Volvo over-snow vehicles which they use in Norway.

Command and control appears to have been good and enabled the Royal Marine General in command to keep up the impetus of this attack, forcing the Argentines to withdraw from the high ground commanding Port Stanley and finally surrendering.

It has now been disclosed that the Argentines did not lack food, ammunition or good equipment. Their conscript morale was however low though the morale of the regulars was good. Leadership was however poor and they were up against some of the world's crack units, the Royal Marines, Paratroops, Guards and Gurkhas.

As always, the skill and training of the PBI won the day against greater numbers.

These lessons can be applied to NATO's Northern Flank where the Royal Marine Commandos, the Royal Netherlands Marines, US Marine Corps and the Canadian Arctic Brigade are due to reinforce the Norwegian Army. Training on the ground, local air support (possibly from VSTOL aircraft as airfields may be destroyed), arctic equipment (mostly pre-positioned) are essential. The Falklands illustrate that in such rugged country there is a good chance of any Soviet attack being held

for some time to allow for further reinforcement, political negotiations etc. Helicopters will prove essential for re-supply but more air defence of both airfields and units is required.

Summary

The Soviet Union must have had a shock at the determination of British leadership, the speed of British mobilisation and the immediate support given by its allies. The skill displayed by the British forces and the use of civilian assets must have been a further surprise.

To NATO, the Falkland Islands campaign again emphasises the importance of good training and communications, the operations of all three Services as one, the need for more adequate air defence at all levels and the value of VSTOL aircraft. One of the most urgent needs in Europe, that of improved anti armour defences, of course played no part in the Falkland Islands campaign.

I believe that this campaign will contribute to deterring World War III. The danger of such a war may well come in 1984-86 when President Brezhnev has disappeared from the scene and after a struggle for power, the new leadership will have taken over in the Kremlin. This new leadership may be faced by a choice between the disintegration, not only of the Soviet empire but of the component parts of the USSR itself, or aggression in Europe. They will choose the latter if they think they can get away with it.

The lessons of the Falkland Islands campaign are that aggression does not pay.

COMMAND AND LOGISTICS FROM THE UK BASE

DURING THE SOUTH ATLANTIC WAR

by Neville Trotter, MP
Conservative Member of the House of Commons, UK

I think the first lesson of the Falklands War is that we can be sure that in war it's the unexpected which is going to happen. I visited Argentina two years ago and found that the Argentine people in general, the Navy in particular, all believed that those Islands were theirs historically and geographically. They were told that in school and they accepted it absolutely.

On the other hand, I came across no beligerency from their Navy at all on their subject. I had to raise it with them and they weren't beligerent about it and I remember one well-placed admiral in particular saying that he thought that they'd return to democracy in Buenos Aires before the Islands -- I think he did say the Malvinas, I don't think he referred to them as the Falklands -- before the Malvinas Islands issue was settled. So whatever intelligence information was available, the interpretation didn't seem to indicate on either side of the Atlantic that conflict was imminent.

Now I'm going to talk about the command of logistics. It does seem to me not easy to highlight failures because on this front, anyway, there was a very great measure of success. Admiral Tom Hayward the recently retired head of the U.S. Navy, said a few months ago that wars these days were going to be "come-as-you-are" affairs and that most certainly was the case in the South Atlantic. I happened to be in the House of Commons on the Friday morning while a very mundane piece of domestic legislation was winding through when the Deputy Foreign Minister came to make a dramatic statement about the events in the South Atlantic. That was on Friday, and on the Monday Task Force 317 sailed. The main body of the fleet sailed over only a weekend. And within a remarkably short time, over 100 ships, naval, auxilliary, and merchant were on their way down to the South Atlantic in Operation Corporate.

Many people would say the plans must have been very good and very detailed, but I am assured there were no plans at all for this operation and the plans were prepared -- and I speak in all truth -- <u>after</u> the fleet had sailed. On the day, one staff officer said to me, only half in jest, that if as a staff exercise they'd been told to prepare this plan in peacetime, they'd have said it was impossible. But the Prime Minister was not going to accept that sort of answer and the military did not wish to put such an answer before her.

But it is relevant to remember that in 1967 the Labor Party Secretary for Defence, Sir Dennis Healey, said that there were certain things that Britain would never do again. We would never operate on our own. We would never operate away from land based air cover. We would never operate away from bases and repair facilities and certainly we would never mount an amphibious landing. Indeed, I believe in one speech in the House of Commons he actually referred to the Falklands as being a sort of situation which just could not be accepted if it arose.

And the distance that which we faced in this operation really was enormous. Everybody knows the figure, seven or eight thousand miles depending on whether you go straight there or as in many cases was the pattern, the ships and aircraft had to detour to keep them as far away from the South American mainland as possible. I don't know if a map altogether gives a right image of the immensity of the distance and the distance between the UK and the Falklands. It is further than from London to Singapore or to Tokyo. It took three to four weeks for anything to arrive down there. There was no airfield and no repair or shore based facilities at all. So you can see why the staff officer said if this plan had been thought about in peacetime it would have been said to be impossible.

Now it so happens that a few months before the war started the Chief of Defense Staff had succeeded in having the highest level of management in the military refined. It was announced publicly in a letter to the chairman of the House Defence Committee. It was said at the time to be a matter of simply a change of emphasis but I believe it was a very fundamental reform: from now on the Chief of Defense Staff is not acting as chairman of a committee of military leaders. He is the principal military advisor to the Government (in this case the Prime Minister) I believe that reform proved itself a great success only a short time after it was introduced through this war arising. And when the inner cabinet met, as they did at least once a day during the war, the only military officer there was the Chief of Defense Staff. Now if I say that the Chief of Defense Staff was the only link between the headquarters of the fleet at Northwood in London then I'm sure that's not absolutely correct. There must have been some link on the logistics side. But at the top the only link was between the Chief of Defense Staff himself, his small staff, and the fleet commander at Northwood outside London. There were many phone calls each day at personal level between the chief of defense staff and the commander of the fleet. It so happens they were both admirals.

At the start of the campaign, The Chief of the Defence Staff issued a directive to the commander and chief of the fleet which said quite briefly that the fleet commander was to prepare a plan for landing on the Falklands and recovering possession. Attached to that instruction was a very short appreciation from the Chief of Defense Staff's office of the problems were involved. The commander in chief prepared his plan, the cardinal point of which, I think, was the landing of San Carlos Bay. A number of other places were considered but San Carlos was ultimately chosen partly because it was some distance from the main concentration of Argentinian forces in Port Stanley. Second, because the terrain made it extremely difficult if not impossible for Exocets to be used against the ships in the Bay. Thirdly, because there was very considerable worry that the two small German built submarines could cause a great deal of damage in the Falkland Sound (it's possible to bottle up both ends of the Sound with antisubmarine ships and helicopters), San Carlos came out the clear winner over the alternatives.

The commander-in-chief of the fleet then presented his plans to the Chiefs of Staff Committee. All the heads of the three services discussed the plans and slight amendments were made, only slight, and then the chief of defense staff presented this plan to the inner cabinet. That was the only time that the heads of the Army, Navy and Air Force attended the inner cabinet meeting. Of course the three service chiefs met daily to discuss the support required by the task force and much of the problems of a logistic nature were dealt with on a single service basis. The Navy, for instance, gave out all the fuel and all the food from its background resources. The three service directors of the planning, met three or four times a week and their main role was to coordinate and insure that everything was being covered by one or other of the services.

I think a very important fact is that there was no contact between London and the task force in the South Atlantic. The Chief of Defense Staff could have picked up the phone at any time and talked directly to his commanders down there but he resisted that temptation. He was determined, as he put it, that this was not going to be a war where the man in the foxhole was being told what to do by the Ministry in London. So the Chief of Defence staff had no contact with the task force on a personal level until the flagship returned to Portsmouth and he flew out with the Prime Minister to greet the task force commander.

Before going on to the details of the command structure in the south perhaps I should say a very brief comment about the composition of the land forces. We have Three Commando Brigade

as a permanent feature of our forces, as part of the Navy. It consists of three commando battalions which are very tough infantry battalions. It also has (and I think it's a very important point) a logistics battalion which is a permanent battalion giving support to that brigade and is accustomed to going with it. It also has an artillery regiment, of three batteries, although only two went on this expedition because the third one is a reserve battery. The reserves were not calledup.

Initially, we sent to the islands, as well as the three commando battalions in the brigade, both Parachute Battalions. It was coincidental really that they were the ones to be sent because the Army has at any time an infantry battalion on spearhead which that is ready to go at very short notice. It so happened that the first battalion in line for that was one of the Parachute Battalions and the second in line as backup battalion happened by chance to be the other Parachute Battalion. So that's how they came to go so very speedily and of course they were very suitable troops, trained to operate very fast over bad country carrying very little with them. They couldn't have been more suitable.

They came out of Five Infantry Brigade, a formation set up fairly recently with the aim of being available for operations outside the NATO area. Before this was set up there really was a shortage of command headquarters, brigade headquarters, for that purpose. The Fifth Infantry Brigade consisted of the Gurkha battalion and the two paratroop battalions. When the Fifth Infantry Brigade went south with the Royal Marine Commandos, the Paras were replaced as spearhead battalions by the two Guard Battalions: the Scots and Welsh Guards. They found themselves suddenly changed from public duties. They were spending day after day marching up and down on the parade ground preparing for the Queen's Birthday parade, The Trooping the Colour and they were sent on very sort notice to the windiest and wettest place we could find in the UK: the hills of Wales. They had a week there trying to pick up something of how bad it would be down in the Falklands. That brigade also had an artillery regiment. In this case it was a full regiment of three batteries and many other bits and pieces were added, including the troops and engineers as necessary. There were about 8,000 troops in the two brigades and something like 10,000 troops altogether went south.

Now to come back to the command of the south, Rear Admiral Woodward was one of the three seagoing admirals in the Royal Navy and he was chosen and sent south in command of Task Force 317. All the ships there came under his command except for the

nuclear submarines. They are always directly under the commander in chief of fleet and that remained the case in the South Atlantic. There was however a naval captain who was an experienced submariner on the task force staff. There were two additional captains on the staff of Admiral Woodward who worked 12 hour shifts about, responsible for the day-by-day, the minute-by-minute operations of the task force so that Admiral Woodward could be relieved from having to concentrate on imminent missile attacks or whatever was happening so that he could deal with the broader strategy of his operation.

Once the landing started, the commodore in charge of the amphibious group took over the landing from HMS Fearless, flying his flag on that assault ship. That ship was absolutely vital the operation. There were up to 3,500 signals a day going out from her and there were 36 radio circuits on board, and if the Soviets are analysing all that it must be going to take quite a long time to go through it all. They probably are, but it'll be quite a job.

On board also was Brigadier Julian Thompson the one-star commander of the Third Commando Brigade and of course a Royal Marine. When he had established his quarters ashore after the successful landing that headquarters than came directly under the commander in chief fleet at Northwood although the Commodore aboard Fearless remained responsible of the logistics entailed in getting the supplies ashore.

The Royal Marines have three two-star officers under their three-star commandant general and one of those two-stars is the training general. Second is the chief of staff. The third is the Major General Commando Forces. That proved to be a most fortunate appointment, tailor-made for land operations in the south. Major General Jeremy Moore, who held that post, was sent immediately to Northwood and he became the initial land advisor, land deputy, to the commander in chief fleet, Admiral John Fieldhouse. So he was engaged in planning the operation of Northward in the first stages. He then flew down to Ascension Island, picked up the second wave of soldiers on the Queen Elizabeth, went down south, was picked up by a destroyer, taken to the flagship where he spent two hours talking to Admiral Woodworth and then he was off to take over ashore from the brigadier who was the original commander. I referred earlier to the fact that there was no backseat driving from London and in fact the commander in chief fleet in Northwood himself only gave raw directions to the commanders in the field. As I said, the Minister of Defence and Whitehall never spoke to the task force.

On the naval side, 10,000 sailors went south in the fleet and in order to the additional activity required by this operation, 4,000 extra sea billets were created. Of course not all those 4,000 went south. Some of them went onto reserve shifts, to replace the ones that had gone south. Others, quite a lot of them, went south on the merchant ships because each of the merchant ships had an able communication party and often other naval parties on board as well. Only 20 reservists in the Navy had to be called up and I believe most of those were postmen. There were so many extra letters to be dealt with that they had to call up specialists to deal with it.

The fleet had something like 30 Navy ships; about 24 destroyers figured to the maximum down there. Of course by the time they were all there the first ones were beginning to come home and be replaced. Practically the whole of the civilian manned Royal Fleet Auxilliary went down. We have 10 fleet tankers, six landing ships, five replenishment ships, four support tankers and one helicopter support ship; and all of those -- pretty well every one of them -- went south. One of the great features of the supply operation was the way in which the Merchant Navy was cooperating with the Royal Navy. Fifty-three merchant ships were taken up. A new acronym was created. It didn't go down very well with the Merchant Navy. They were said to have been STUFT and they didn't like that very much. But it stood for Ships Taken Up From Trade and 29 were chartered and 24 were requisitioned. The liner Queen Elizabeth was on her way to the Mediterranean and she had a number of American passengers from the other side of the Atlantic on her and they were putting into Southampton to pick up British passengers and continue. I think the liner companies naturally said: "Please can our ship be requisitioned and not chartered," so that the only legal claims against them would be void as a result of the legal action taken by the government. That's why 24 of the ships were requisitioned rather than chartered.

There were 15 tankers taken up. Many of those were used to take bulk fuel south but some were used to oil the ships there. There were three passenger liners, three container ships, eight Ro-Ro (Roll-on, Roll-off) ships from the North Sea, nine cargo freighters including a considerable refrigerated capacity, and four trawlers. They actually swept 20 mines. I believe they (the mines) were made in Germany. They have a green one but I don't know whether anybody recognizes them from that description. But there were repair ships, and they played a very vital role which I'll come back to in a moment. Three tug boats and half a dozen miscellaneous vessels were also there.

In total, over 3,000 Merchant Navy sailors went there, including 56 girls. They were paid 150 percent over their normal pay rates. Apparently it's agreed that if we go to somebody else's war the crew will get 100 percent over normal but if it's our own war they get 150 percent over. But one of the remarkable features of this campaign was the 100 percent cooperation that there was from all the civilians involved. None of those 3,000 sailors needed to go south. Any one of them could have refused to go but it just didn't happen.

There was tremendous trust between the Government and the Merchant Navy, or the Merchant Navy and the Government to be more correct. Because the terms under which the ships were taken over were not in fact agreed until after the war was over. The first of the requisitioning took place on Friday, April 2, when the invasion started. In fact some ships were being requisitioned before the announcement had been made, in the House of the Commons, that the invasion was confirmed. So the 2nd of April was when they were taken over, the first ones. The campaign ended on the 14th of June and the terms weren't in fact agreed until the 23rd of June. The argument I understand over cost was so great that the Chancellor of the Exchequer himself had to be brought in. But the speed with which those ships were made available and sailed south was really quite remarkable.

The liner Canberra was at the end of a 96 day world cruise. How lucky we were that she was at the end of that cruise and not off Tahiti at the time. She was just approaching Gibraltar. She was told to go into Gibraltar. A naval party came out with tape measures and sized her up for helicopter platforms and all the other alterations and she came into Southampton on a Wednesday and she sailed for the South Atlantic on a Friday. That's a week after.

An amusing aside, on the engine room compliment the engineers were from Pakistan and that was not possible for them to go south into the war zone and so they were replaced by the members of the National Union of Seaman provided by the Union. They were all Yemeni citizens. I don't quite understand the logic of that.

The ships were in general all fitted for replenishment at sea and 17 of them had helipads fitted. There were some quite remarkable stories. The Canberra was used -- 40,000 tons painted gleaming white -- as an assault ship and I asked the captain were there any defenses. He said the Marines had about 30 machine guns on the deck but when they went to shore they took the machine guns with them.

The Elk, one of the ferries in my part of England, in the north, runs over everynight to the Continent. She went into San Carlos with 2,000 tons of ammunition lying on the deck. She was lucky: she had two Bofors guns to defend her which is than the others had. The captain did say he didn't think it would have done much good if they'd been hit.

But at any one time there were six or eight large merchant ships or auxilliaries in San Carlos Bay in Bomb Alley and not one of them was damaged. That was quite extraordinary. At sea as we know the Atlantic Conveyor was sunk by an Exocet missile and one tanker was holed by a bomb rolled out of the back of a Hercules aircraft. The bomb actually hit the tanker but didn't explode.

The minor lesson that was learned was that the ship sailed in many cases without adequate survival gear. I suppose if you're going on a voyage around the world you wouldn't normally think of taking Antarctic survival gear with you in the lifeboats. But the big lesson is one that we referred to earlier and that is the need for the country to have available a sizeable merchant navy in which ships like this can be acquired. In the future if only flags of convenience ships are available, would their crews be available? The answer there is probably not. The ships probably could be taken but the crews probably not. We must have our own ships and our own flag, if you wish to use them in this way. I referred to the cooperation given by the civilians it really was beyond praise. All my friends in the Merchant Navy tell me that in every case of their ships being refitted for the South Atlantic, the speed, confidence and the enthusiasm of the dockyard people was absolutely astonishing. People worked all weekend that first weekend and in the ports there was nothing said at all about the union rules. People absolutely got their backs into it and there was a magnificent response of all the civilians involved. In one case a Ro-Ro ship was converted into a helicopter carrier in one week. Certainly the hallmark of the logistics side was the remarkable improvisation and the remarkable flexibility. On the aircraft side I think there's been a reference made to the installation of AEW equipment in helicopters. That did take 11 weeks and is now down there I believe. Of course they were too late for the war, but to fit that in 11 weeks was remarkable. The air and inflight refueling in the Nimrods, the fitting of Harpoons -- long overdue in my opinion -- the fitting of Sidewinders to Nimrod: done almost in days rather than weeks and the same with inflight refueling in the C130 Hercules. Things which would normally take months to do took days or weeks. Perhaps one of the biggest changes was that it would have taken years to get financial approval to do these things in normal times.

One of the big lessons here is what can be done if you say money is no object, and that was what was said here, that there would be no financial restraints whatever. If something had to be done it was to be done at once, regardless of cost. That, of course, very much improved the capability of what could be done.

The new carrier, HMS Illustrious, was building in my home town on the Tyne, and she was accepted into service on the 18th of June, months ahead of time and she was commissioned at sea (something that doesn't happen in the normal way) on the 20th to save time. She was commissioned at sea on her way south. She arrived in Portsmouth on the 24th having done some trials on the way. She stored in three days. The first Sea Harrier landed on the 24th. She completed her air trials on the 26th. She completed her workup on that day and she sailed on the 2nd of August having only been accepted by the Navy on the 18th of June. That's a 20,000 ton ship with a crew of 1,000. Some of those trials were done in 9 days when the original plan was to take nine months over them. I wonder if we have learned a lesson on that one for the future.

I have referred to the two repairships which are still down there, I believe. These were North Sea oil repairships and I had wondered about what we would do because the Triumph, the last of our (Naval) repairships, which used to be based out ~~east, but it~~ was brought home some years ago. She had lain at Chatham all those years since and was scrapped only at the beginning of this year. We had no repair ship. I'm told that these two north sea oil repair ships performed magnificently, and are in fact very much more suitable for the modern repair needs than the old depot ship which was in fact a converted aircraft carrier.

And so these two ships sailed south with about 160 naval people on board as well as a civilian crew and the first one to go down repaired battle damage on 11 ships altogether. Initially she was based in South Georgia, but that was too far away from the action and so she was brought up and carried out repair at sea in an area off the Falklands. Later on she went into one of the Sounds and Plymouth -- one of the frigates damaged by three bombs -- had been repaired at sea in four days. And I like the story where the Gamorgan was hit by the Exocet with only damage done. It didn't sink her. But during the repair work there there was a need to weld stainless steel which apparently requires you to have special stainless steel pieces. They didn't have any on board and they used a couple of spoons. Another case, I suppose, of improvisation.

But some of the people have said, and I've seen in the American papers, that if all the Argentine bombs had exploded on the ships the outcome might have been different.

I said earlier that the British logistics was a very successful aspect of the war, and it was. Remember the Third Commando Brigade has gone to Norway every year for a number of years and it has readymade kits for that purpose. I'm told that when they set off for the Falklands they just took that kit with them, and just left behind their skis. But there is a month or so of supplies at sea loaded at anytime on board the supply ship and so they upped anchor sailed off with all their equipment in the ship that they normally took with them. That was a tremendous advantage because it meant that they were ready to go. They knew what was on board and they were going 8,000 miles instead of 1,000 but they were practiced at very quick movement, taking everything with them. The two Parachute Battalions, and the same with the spearhead battalions, also had their equipment on palates in their depos ready to go. It wasn't loaded but it didn't take very long to load it onto the ships.

There is in the U.K. a very experienced logistics organization. The Marines, as I said, go annually to Norway. Most years an infantry brigade goes to Denmark and a very large number of people and stores would go in a NATO crisis to Germany. We did carry out Exercise Crusader and an enormous amount of people and equipment was moved in that exercise to Germany. So there's a very well established logistics organization in this country used to moving people rapidly overseas probably in a way that no other European NATO country possesses. People knew what they were doing and were amazingly speedy at getting things going.

When it came to loading the ships, one advantage was the fact that there aren't any roads in the Falklands so there wasn't much point in taking the normal large number of vehicles. Two brigades would normally take about 3,000 vehicles. For this operation we only took 300 because there are only 10 miles of road in the whole of the Island. In fact of those 300 not all were really needed because it was found that one of the problems was that much of the equipment today comes attached to a vehicle: the repair outfits, the mobile workshops are built into vehicles. The trucks taken down there were never going to be used, and were not in the final stages when they got to Port Stanley. They had to be dumped ashore simply because they contained repair or command facilities, and then they have to be taken around to the next place by sea or by helicopter, as the advance progressed.

The main logistics problem that was found down there was moving the bulk of stores from the ships to the bulk stores ashore. That was a very difficult job and there were no facilities to do it at all. When I was in Port Stanley I don't remember seeing a crane at all. I suppose they must have a couple of mobile cranes in some garage but there's no normal port facilities and of course in San Carlos Bay there was absolutely nothing whatever. All port facilities had to be taken down with the task force. Every form of mooring, buoys, ropes, anchors, in fact any sort of repairs that were wanted, anything like that -- had to be taken. It was a major task to get the stores in quantity ashore onto the ships, probably the most difficult part of the logistics operation.

Nobody knew how long the operation was going to take and if it was going to take 3-4 weeks for anything to get down there they had to keep the logistics pipeline flowing. So right up to the end there were more supplies being sent off from the U.K. to join the force in the south and at the very end huts for over 3,000 men for the garrison were sent down. At one time it was thought of buying up and removing en masse an old oil village, an oil camp from the Shetlands but that didn't seem to be as practical as originally thought and so new huts were then bought.

During the operation there were something like 10,000 personnel and 100,000 tons of freight taken down with the vehicles and between 90 and 100 helicopters and Harriers went ashore. 12 million meals and 1 million rashion packs were carried South and at the end of the campaign there was nearly half a million tons of fuel in the supply line on the way down to the south Atlantic and 670,000 tons by that had time set off from the U.K. on the way south. All together 160 aircraft and helicopters went south either for use ashore or for use on ships. A very successful story as I said.

The only critical shortage was the loss of tents when the Atlantic Conveyor was sunk. They didn't do their spread loading on that and tents for 4,500 men went down on the Atlantic Conveyor and that was the only shortage. At no time were the aircraft there inoperable for lack of spares and the captain of the flagship Hermes reported he was never short of anything and his ship's company was still eating steak as they steamed home after 100 days and more at sea. There were some odd cargoes taken down. There were gifts of New Zealand whiskey. I'm sure it's splendid. There were balaclava helmets, no doubt knitted by old ladies. There was thermal underwear, specially brewed beer in considerable quantities and even strawberries and cream were taken down. At the end there

were 11,000 and more prisoners of war to be fed and looked after.

Mention was made by Sir Patrick Wall of the role of the Ascension Island base and that was indeed absolutely vital. It's a barren place. There's no British military presence there. There was no accommodation available. In normal time there's a very small American outpost there and one interesting factor -- because nobody lives there -- somebody said half in jest that perhaps there'd be a United Nations move to give it independence. In fact, there was nobody; there were no Ascension Islanders at all. So one can work out for oneself the significance of that.

Initially as the task force sailed to Ascension it put into the bay alongside it. A Royal Naval captain was sent down as the senior British officer. But as the RAF works there, the RAF involvement in the Island increased and he was replaced by an RAF Group Captain. The RAF flew down over 5,000 people and 7,000 tons of stores to Ascension Island and at the maximum there were over 800 air movements a day. Many of those of course were to and from the ships anchored offshore. Reference has been made to the very large number of inflight refueling tanker sorties made, and I believe that only six of those were aborted for technical reasons which is a remarkable achievement. It did lead to three aircraft having to go into other countries, including the Vulcan bombs going into Brazil.

To get a Vulcan down to the Falkland Islands took something like 10 tanker and it varied but something like 18 tanker sorties by those tankers and of course they had to engage in buddy-to-buddy tanking of the tankers to get a Vulcan down there. So it was an enormous operation to get the Vulcan down and there weren't very many Vulcan flights made for that reason. Reference has been made to the large number of Nimrod maritime patrol sorties that were made and with inflight refueling their endurance was doubled, and they stayed up for 18 hours at the maximum.

A great deal of transhipment of stores went on. At Ascension Island they were able to sort out those things that had not been properly loaded in the haste of getting away from the UK, and to add on the things which they'd left behind and which could be flown down. There were 600 freight flights to Ascension from the United Kingdom and fortunately the heavy lift Belfast aircraft which the RAF lost in the defense cuts some years ago hadn't all been cut up and the RAF was able to charter some of them back from the civilian company that now operates them. The Hercules was the main aircraft and over

14,000 hours were flown down to Ascension and the VC 10s added something like another 4,000. Some of the Hercules C130s were used to support the task force in the south and nearly 40 air drops were made of goods, vital materials, to the task force in the south. One of the first vital materials was the new commanding officer of the Second Parachute Regiment who jumped out of a Hercules having flown 12 hours in it to get down there. He jumped out in the middle of the night over the sea, and wearing some form of transponder, jumped into the sea and was picked up by a frigate who took him ashore.

On the Hercules flights south there were two crews, and over 24 hours was the normal time. I believe this sum went up to 28 hours and established a world record. I don't know whether anybody wants to compete for it. I've only spent four hours in a Hercules and that was quite long enough, thank you. Twenty-eight hours in one is beyond belief.

The helicopters in the Falklands were of course absolutely vital for the logistics and there weren't enough of them. The loss of the helicopters in the Atlantic Conveyor was a blow, quite a serious blow. The ones that did get there -- a very large number of them got there -- were used to move guns and ammunition. Most of you probably heard about the Royal Marines "yomping", a word they apparently use in Marine language which means carrying 140 pounds on your back over the hills, and the ~~Royal Marines~~ yomped with those loads around the northern half of the Islands.

The Chinook helicopters were put to good use. The safety rules I understand were somewhat reduced and they managed to get 81 passengers into a Chinook. When the Welsh and Scots Guards went they could only get 70. I don't know whether they tried the Ghurkas. They probably got 100 of them aboard. On another occasion they got three 105 mm field guns, and 22 gunners in. I think two were hanging underneath and one was inside or the other way around. I did say at the start of that the safety rules were somewhat reduced and this was one of the factors which did lead to some losses that would not have taken place if the normal peacetime rules had been applied.

The ammunition use was interesting down there. We'll have to wait to hear more about the anti-submarine warfare that may or may not have taken place. What does seem to be likely is that quite a few antisubmarine torpedos were fired and I think the normal NATO rules about waiting until you hear the opponent's torpedo running at you were not perhaps adhered to. One has to wonder in fact if it's a very sensible rule for NATO if that is indeed the rule. There are probably quite a few whales down

there with sore heads. But it isn't certain whether there was an attack by an Argentine submarine or not. I think there probably was an attempt at it. It didn't work and I hear from American sources that they may be looking at the fire control system on that particular type of submarine again. I don't know whether that's true.

But ashore it seems that if you give a gunner a shell he will fire it. I'm sure there are some gunners here who will tell me whether I'm right or not. If you give him ten shells he'll fire them. If you give him 100 shells he'll fire them. If you give him 1,000 shells he'll fire them until the battle falls off. In the last stages when they were preparing for the final attack at Port Stanley, the 30 RA gunners down there fired 16,000 shells.

Let me say just a little more about the organization of Northwood. That is a joint service headquarters. It's a NATO headquarters as you know. It is an unusual headquarters. It is the eastern Atlantic headquarters subordinate to SACLANT. It is also the Channel Command at the same level of importance, in theory anyway, as SACEUR and SACLANT. It's also the base of the commander in chief of the British fleet and of course it was in that last capacity that John Fieldhouse was operating.

Now next to it in the same grounds is the headquarters of 18 Group of the RAF which is the Maritime Group. There is a senior airman and always there as assistant to the fleet commander. He became the Air Force deputy to John Fieldhouse on this operation. His staff -- the Air Force staff -- are augmented by non-maritime people: strike people, fighter people. The commander in chief of our operational Air Force at Strike Command retained command of the RAF unit, and his headquarters were very much involved in planning and advice on the RAF side. The Land Deputy as I mentioned before was originally Major General Jeremy Moore, the two star Marine who later went down to command the land forces in the Falklands and when he did go the territorial commander for Southeast District in England was moved over to Northwood to become the Land Deputy.

I think the lessons that we have learned here are that there must be no political delays. There must be full political support which there was. There must be a minimum of paperwork, no financial mistakes and a lack of interference with the commanders on the spot. All those things applied and I'm sure they are lessons well learned for the future.

I've referred already to the fact that a great advantage came

from the fact that the men in the Commando Brigade, at least, were used to working together. There was a rapid improvisation of flexibility in the logistics and planning and support and utmost priority was given to this operation with no financial limit at all. I suppose most important must be the quality of the men and the fact that they were ready to go.

Now the campaign is still being analyzed in Whitehall and we'll have to wait to see what the official results are. I suspect that it'll be more a question of relearning old lessons than learning new ones and I fully agree that other nations should learn from this, and I believe they will. But I would suggest that there's a need for this country to learn as well, and we need to learn the need for a strong Navy, flexible and with all-round capability. We still have that capacity as we have proven and I believe it's essential that we retain it for the uncertainties of the future. I think one really ought to praise the heads of our Navy who have maintained that capability against great difficulty in recent years when their task has been to command and create and maintain a short-range NATO force specializing in antisubmarine warfare. Against that background they have still managed to maintain this capability to use the flexibility of sea power thousands of miles away. Great praise and credit goes to the heads of the Navy for that achievement.

When we last had a Soviet ship in this country, I talked to the admiral who came with it and I was not surprised when he told me that they had learned a very great deal from the history of the Royal Navy as to the importance of sea power. I believe that that is a lesson that we in this country must not forget in the future or we shall be very much at peril.

THE IMPACT OF THE SOUTH ATLANTIC WAR ON BRITISH DEFENCE SALES

by

Lieutenant Colonel Robert Jarman

I hope that you will forgive me if I start with three short quotations from the 1982 Statement on the Defence Estimates, drawn up before the Argentine invasion of the Falklands Islands:

"We estimate that defence sales transactions will reach 1,800 million pounds in 1982/82.

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To ensure that export considerations play a more significant part in the development of new equipment, we are encouraging Industry to submit their views, backed wherever possible by market research, at an early stage in the procurement process.

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We must ensure that, wherever possible, (and more often than hitherto) the needs of the Armed Forces are met in a way that is compatible with the demands of the export market."

And one more, from the Foreword of the White Paper, which was signed by the Secretary of State for Defence on 18 Jun 82:

"Only when the Falklands crisis has been fully studied will we be in a position to take reasoned and considered decisions on what adjustments need to be made to the defence programme."

Ever since she took office, the present Prime Minister has been resolutely encouraging the Defence Industry; not least because she is all too aware that the income of 1,800 million pounds shown above has to be seen against the estimated expenditure of 7,000 million pounds on equipment in 1982/83. These figures exclude, of course, the cost of the operation to repossess the Falkland Islands and South Georgia.

At this stage, it is not easy to forecast the long term effect of the campaign on future sales. The Secretary of State for Defence is on record that "months" will be needed "to analyse the Falklands operation and to identify the key issues, not least in the area of defence equipment." More recently the Ministry of Defence has stated "much detailed evidence remains to be collected and evaluated."

Any form of hostilities can have an immediate effect on the

Defence Industry, particularly when equipment is given 'star billing' by the media. The irony from a British point of view is that the equipment which had most publicity in the British press was the Exocet missile, made in France and used against us with such dramatic effect starting with the sinking of HMS Sheffield in May. Overnight the word Exocet came into the language of the public house, incidentally fuelling anti French prejudice in Britain.

Although France and not Britain will gain from the inevitable immediate enquiries for the supply of Exocet, it is hoped that one glaring lesson will have already been learnt on this side of the Channel concerning after sales service. Without the engineers from Dassault, living in Argentina and fulfilling a year long contract which started in November 1981, it is extremely unlikely that the Argentine forces would have been able to fit Exocet to the Super Etendards and thus both HMS Sheffield and the Atlantic Conveyor would probably not have been sunk. Of course, the French Government ceased the supply of both expertise and material once hostilties had broken out, but there appears to have been no attempt to recall the French experts already on site; the French Defence Industry seeing no reason to remind the French Government about who happened to be in Argentina early last April.

~~The British~~ Government were reassured by the French Government into thinking that Exocet could never be air launched by the Argentinians and although the French diplomats may now be apologising for misleading us, the French must be well pleased at their sales strategy. It should not be forgotten that the French Government has a majority share-holding in Dassault, the makers of the Etendard, and owns Aerospatiale who make the Exocet. It is now known that an SAS raid on to mainland Argentina, at Rio Gallegos, had to be undertaken in order to destroy Exocet equipped Etendards.

We have thus seen a first class example of how the French Government and their Defence Industry work hand in glove towards commercial success whilst observing all the diplomatic niceties. Given the envy for the way the French operate their defence exports, which exists both in British Government circles and in the British Defence Industry, we should now expect to see closer cooperation between British diplomats and engineer-salesmen in the marketplace. Such cooperation, of course, can frequently be no more than a convenient diplomatic lapse of memory.

If Exocet was the villain of the piece from a British point of view, then the UK also had her heroes. Both Rapier and Blowpipe received a good press and, like Exocet, overnight became common words in the language. The fortuitous timing of

the British Army Equipment Exhibition, in June this year, gave both British Aerospace and Short Brothers the opportunity to test the immediate reaction of many of the world's leading military men to their equipment so recently in action. There appears to be some controversy about just how successful these systems were, Rapier being credited with 13 'kills' and Blowpipe eight out of a total of 39 Argentine aircraft destroyed, after the landings, but the US Air Force seems to be satisfied with the former. The existing US order is, apparently, about to be increased by an extra 12 units to the value of some 60 million pounds. Rapier is now, also, being more favourably regarded by the US Army as possible equipment for the rapid deployment force. It is fair to say that the Falklands campaign has boosted sales prospects for both Rapier and Blowpipe and, particularly in the case of the latter, caused a reappraisal of marketing strategy.

As an aside, it gives food for thought that both Exocet and Rapier were funded as national, rather than collaborative, developments. All would see to bode well for tracked Rapier in the marketplace.

The imaginative deployment of the 84mm Carl Gustav by a young Royal Marine officer in South Georgia is likely to have Defence Sales repercussions. Although any immediate benefit will be for the Swedes, the action will have reminded many of the versatility of such shoulder launched weapons and should be a useful boost for the British LAW 80 programme.

At the other end of the scale, in monetary terms, those potential customers who were attracted to the Harrier but had thoughts that the aircraft was but an interesting gimmick will have been impressed by the Sea Harriers performance against the Argentinian Mirage/Dagger opposition. Of some immediate concern to Defence Sales must be the possibility of diverting the (six) Sea Harriers on order to the Indian Navy to replace British losses in the Falklands. It is to be hoped that this concern is allayed by the recent announcement that 226 million pounds is to be made available to replace helicopter losses sustained in the campaign, including 14 Sea Harriers.

The Falklands campaign has already had some obvious effects on Defence Sales. The sale of HMS Invincible to Australia has been cancelled, possibly to be replaced by the sale of HMS Hermes. We also learn that the negotiations between British Aerospace and the Chinese Navy for the sale of Sea Dart for the latter's Luda-class destroyers have been interrupted whilst the performance of the missile during the campaign is anlaysed. Thorn EMI Automation have almost certainly lost the sale of their target designation unit to Argentina; ordered for retro-fitting into the Type 42 destroyer Santissima Trinidad.

Similarly Marconi Avionics and Cossor seem unlikely to be able to complete deals in the pipeline with Argentina for head up displays and IFF (identification friend or foe) systems. Venezuela, the strongest of Argentineans supporters during the campaign, has recently 'suspended' the 70 million pounds order previously placed for Hawk aircraft.

If the campaign did nothing else for British military thinking, it served as a reminder of the essential unique role played by the Infantry: a concept apt to become blurred on the plains of Westphabia. For various reasons sales of equipment for the individual fighting man are often overlooked against the background of sales of jumpjets or tanks. The British pride themselves on equipping, clothing and feeding each individual in their all-regular forces to a very high standard; and this policy is reflected in successful sales of such essential items as clothing and sleeping bags. Reporting on the performance in the Falklands of the mundane essentials for the serviceman has been sparse but there have been a few clues for the Quarter Master Generals of the free world to contemplate when next reordering from the United Kingdom.

It will not have escaped notice that the British special forces carried a different rifle from their brother-in-arms with more conventional units.

Whilst the SAS could be readily distinguished on the ground with their M-16s the other soldiers were armed with the (NATO) 7.62mm SLR. The sales implications of this military fact of life could be interesting and of fairly obvious benefit to the US, whilst making it all the more difficult for the UK to offload their SLRs when the EWS (Enfield Weapons System) comes into service.

An old military spectre, from World War I and before, came into the news again during the Falklands campaign: 'trench foot.' Viewers of Argentinian television pictures of their returning prisoners of war will have noticed many instances of men hobbling down gangplanks in obvious pain. Considerable publicity was also given to remarks concerning both boots and socks attributed to HM The Queen when she was visiting British casualties in a military hospital and had stopped to chat to a sufferer from 'trench foot.' The whys and wherefores of 'trench foot' are a medical matter but the publicity could certainly have an adverse effect on UK sales of military footwear and possibly a knock-on effect on other clothing.

For potential customers to put into question the high standard of British military clothing would be largely unfair, given that British soldiers were equipped for the vigours of the South Atlantic based on considerable experience of exercising

in the wastes of NATO's northern flank. Certainly the
excellence of the UK sleeping bag was well proven even if the
loss of the Atlantic Conveyor appears to have caused scaling
problems. Why the Welsh Guards found it necessary to 'beg,
borrow or steal' sleeping bags from members of the Parachute
Regiment is not clear, but the incident highlights both the
importance of the item to the soldier and the excellence of the
product. It is not too big a flight of fancy to suggest that
had the Argentinian infantry had British sleeping bags they
might have held out longer: a cold soldier who has had no
sleep is a miserable and ineffective soldier.

Nothing, of course, is perfect in this world and sensible
purchasers of naval clothing are unlikely to follow the example
of the Royal Navy and clothe their sailors in working uniforms
made from synthetic fibres. Polyester melts and sticks to the
skin when heated, which hardly encourages sailors to fight
fires: during the campaign the Royal Navy 'made do' by wearing
their tropical dress uniforms, made from white cotton, when the
need arose; but this expedient is hardly satisfactory.

No excuse whatsoever is made for highlighting the individual
fighting man at some length. Much will be said in the coming
months, particularly perhaps in fora such as this, about
frigates, aeroplanes and missiles proving themselves in the
South Atlantic but these systems are valueless unless the
individual serviceman is correctly equipped down to the last
detail.

Pictures of abandoned Argentinian equipment have already told
their own story. Guardsman Williams has already performed a
great publicity feat for the food with which he was issued.
Few things are more important to the individual fighting man
than food; and 'compo' (composite rations) is exported by the
British, amongst others. It appears that the 'compo' issued to
the Argentinians was of the same high standard as that issued
to the British, even if bulkier. Doubtless lessons will also
be learnt in this field, by the US as well as the UK, which
will be reflected in the current programmes to re-package
combat rations not only for the home consumer but also for
export.

The unpleasantness of the climate in the Falkland Islands gave
rise to some instant reactions from the Defence Industry. One
firm immediately went into production of individual tins of a
face cream to alleviate the effects of the chilling winds the
soldiers were having to contend with: it would be only just if
their speed of reaction was rewarded by subsequent sales for
this inexpensive, but occasionally vital, commodity.

Three battlefield experiences which affected small groups could

affect sales. In the first case a group of special forces (SBS) were subjected to a horrific experience, and rendered ineffective, by the failure of their outboard engines. Given the importance of the small number of special forces in the British order of battle one has to assume that an up-rated outboard engine will be procured very quickly which, by definition, should be a sales winner.

Customer Countries are invariably interested in UK equipment solutions to problems encountered in operations, of which the outboard engine is a simple example. A more complex example is the solution IFF (identification friend or foe) on the ground. Again, special forces (SAS and SBS) were involved; working with extreme stealth and in appalling weather conditions at least one clash between small groups, with fatal consequences, is reported to have taken place.

A similar operational experience affected the Royal Engineers when given their classic task, after hostilities had ceased, of clearing mines from the battlefield. The highly trained British Sappers could have coped with the indiscrimination with which the mines had been placed; only after taking casualties did they have to admit to being unable to clear plastic, as opposed to metallic, mines. The problem was known and talked about before the confrontation in the South Atlantic and, indeed, enquiries were received in the UK for a plastic mine detector but the solution had not been found. The urgency of the problem in the Falklands, which now have to be restored to some form of normality considerably under the present 40 year estimate to clear some 11,500 mines, will surely provide a solution for which there is an established market. Indeed, the situation did produce a suggested geological answer from the Cubic Corporation in the United States, United Scientific in the UK and the Lucky Group in the Republic of Korea, but it is not yet known how effective these solutions will be in the peculiar soil conditions of the Falklands.

As has already been indicated, it would be foolhardy to endeavour to forecast the long term effect of the Falklands campaign on UK defence sales before the Ministry of Defence reveals its 'lessons learnt' and before the Secretary of State for Defence produces his promised White Paper later this year. It does, however, already seem self-evident that the Type 42 destroyers and Type 21 frigates which have been lost will not be replaced by similar ships; the Royal Navy preferring Type 22 frigates. Not only is this decision of import to the yards but it is likely to affect British input into foreign hulls, a matter of considerable interest to the Defence Industry. The future of the short-range, light weight, Sea Wolf appears to be secure and is likely to be demanded by customer Countries, wherever they may order their hulls. The same future cannot be

forecast for Sea Dart, the long-range, anti-aircraft missile, unless analyses of the campaign forces improvements to be carried out on the systems. It is not for me, as a mere soldier, to comment on the recently expressed views of senior Naval officers that HM Ships are too comfortable for operational use and that our frigates become unsuitable in the South Atlantic when carrying more than half their fuel capacity: doubtless these matters are being evaluated by naval designers around the world.

It now seems fairly certain that the Atlantic Conveyor was lost to an Exocet missile which had been deflected by Chaff; this can be used as an argument both for and against Chaff, but at least the effectiveness of the system has been proven. A side line to the loss of the Atlantic Conveyor has been the subsequent discussion of where her replacement should be built. The Government having already paid some 10 million pounds to the owners in compensation, the Ministry of Defence has now made up the gap of a further 10 million pounds between the quotations received from British Shipbuilders and the Republic of Korea. Given that it is the present Government policy to subsidise the defence industry less and less, the Atlantic Conveyor precedent may well be quoted when subsidies are sought, in the future, for sales.

Although not strictly a Defence Sales matter it is worthy of note that both a private company, British Atlantic Airways, and the civil commissioner in the Falklands are seeking to establish a commercial air route to the Falklands.

The AEW (airborne early warning) lesson has already been the subject of considerable publicity and the Ministry of Defence has been quick to announce the development of an EW version of the Sea King which should have appeal overseas. It is also to be hoped that the Nimrod AEW variant, due in service next year, may now attract more customers; particularly when eventually fitted for in-flight re-fuelling.

A considerable amount of comment has already been made about the role of the helicopter in the Falklands; as in the Borneo campaign and elsewhere, the British just didn't have enough. The value of the helicopter so frequently demonstrated in the South Atlantic is sure to revive interest in both the Wessex and the Sea King. The cloud on the horizon, from a sales point of view, is why such a high proportion of losses occurred through accident rather than enemy action: of the first nine helicopters lost in the campaign only two were due to enemy action.

Interest in two allied British military engineering skills seems certain to be revived as a result of the campaign, both

connected with the problem of disembarking troops from sea to land. The vulnerability of the Welsh Guards whilst disembarking at Bluff Cove was appalling and, with all the benefit of hindsight, thoughts went back both to the military hovercraft and also to small amphibious vehicles. The hovercraft was evaluated at length and in detail by the British with an Experimental Hovercraft Squadron in the Far East in the '60s, but the Squadron was eventually disbanded. Similarly, vehicles such as the Cargocat, a rugged amphibious low loader, have been on trial but unable to find a place in a peace time force orientated to the needs of NATO.

A British invention which could now come into its own for the future defence of the Falkland Islands in the Optica light aeroplane. For inshore patrolling, communications and medivac coupled with long mission duration capacity and low level manoeuvrability this aircraft is remarkably good value at about 50,000 pounds each. The boast the manufacturers of these various equipments need for overseas sales is, of course, acceptance by the home forces. By way of a concluding thought I would suggest that the UK Defence Industry should re-evaluate prospects for their equipment in Central and Southern America. I have mentioned that Venequela, the first Southern American Country to come out in support of Argentina, has already acted against the UK; but let us not forget the obverse of that coin. War between Venezuela and Colombia seems almost inevitable and Colombia came out firmly on the side of the UK at the start of the South Atlantic hostilities; Nicaragua is flexing her military muscles against little Costa Rica on her southern border.

I can assure this audience that there is nothing but admiration for British defence equipment in both Colombia and Costa Rica following the successful conclusion of the Falklands campaign. Another obvious market now is Chile, a country which has its own territorial altercations with Argentina. Although many Central and Southern American Countries were forced by Treaty to appear to come out in favour of Argentina there is much respect at the end of the day for the British military machine. Possibly the greatest impact the campaign will have on British Defence Sales will be by increased trade in the Countries so often neglected by the UK in the past: for those brave enough to print their brochures in Spanish or Portuguese, as the case may be, and to revise their hazy geography of Mexico, Ecuador, Peru, Bolivia, Paraguay, and Brazil the future could indeed be bright. Please do not forget that, from a Latin American point of view, the United States and not the United Kingdom won World War II: since then the United States 'lost' in Vietnam and now the United Kingdom has 'won' in Latin America.

Whilst leaving out some obvious topics for discussion, such as the passage of information from ship to shore; and including very small items, such as face cream, it is hoped that these few comments may stimulate some useful thought.

The quotations with which I started indicate a resolve by HM Government to take more notice of the export market when developing defence equipment; recent events in the South Atlantic seem certain to speed up this process and may well lead to a change in the traditional British markets.

THE FALKLAND ISLANDS CAMPAIGN -

INFORMATION MANAGEMENT

by

Sir Patrick Wall, MP, a member of the British Parliament's Select Committee on Defence and a Vice-President of the North Atlantic Assembly

There are those who believe, both in the U.S. and in Britain, that the media made a major contribution to the Americans losing the war in Vietnam. Over those years the media contributed to the success of the "peaceniks" and undermined home morale. This may be the reason why, when I recently visited the United States, I was congratulated on the way the British media had tackled the Falkland Islands campaign!

In fact there can be no comparison between Vietnam and the Falkland Islands as the latter was short, was fought at a greater distance from available bases and, unlike Vietnam, there were relatively few provisions made for the media and the Press.

Nonetheless, many lessons on information management can be learnt from the Falkland Islands, especially by the Royal Navy, many of whose senior officers took the view that they had a war to fight and to win and that the media were only an embarrassment.

In fact the C-in-C of the Task Force himself had an unpleasant experience with the media. On the outward passage he gave an interview in which implied that the Argentinians could easily be defeated. Having received a bad Press and probably a reprimand from London, he gave a second interview in which he said that he expected the campaign to be long and arduous. He gave no further TV interviews!

Both the Royal Marines and the Army had learnt how to deal with the Press during disturbances in Northern Ireland; the RN had not learnt this lesson!

The overall picture

Prior to the Falkland Islands campaign, the Navy had been at loggerheads with the Government over what they felt were unfair cuts compared with the other Services. This led to leaks and angry exchanges, all reported in the Press and the media. Relations were therefore somewhat strained.

Prior to the campaign, the Ministry of Defence had usually had a one and a half hour briefing session once a month which was non-attributable and off the record.

When the Task Force was mobilised in the amazingly short time of three days and it would appear that the Press and media occupied a very low priority in the planners' programme. The NPA was asked to nominate up to six correspondents, and after protest this was increased to ten, then to twelve, and finally to twenty-nine. No foreign Press were invited as, at that stage, none showed much interest.

There was no pre-planning, any that existed was designed for a war in northern Europe. In fact the correspondents' application form was partly printed in Arabic, a hang-over from the Suez Operations! Press and media communications seemd to have been almost wholly overlooked.

The whole problem of information management in war is now being studied by Parliament's Select Committee on Defence which will be reporting at the end of the year. This Committee, consisting of eleven MPs (six Government, four Labour and one SDP) of which I am a member, has already had a number of public hearings on which this paper is based.

First Ministry of Defence Organisation

As the policy had been that there would be no major operations without participation of allies and that any such operations would take place in northern Europe, there was no pre-planning for the Falkland Islands campaign.

The priority was rightly the security of the forces involved and this was made more difficult by the long 8,000 mile passage before hostilities could begin. Limited communications were provided for sound broadcasting but there were no facilities for TV or still pictures, as no airfields were available in the Falkland Islands. Pictures therefore had to go to Ascension Island by sea and then by air to London. Thus the BBC and the ITN were starved of film and had to rely on pictures from Buenos Aires and from the Argentine TV teams on the Falkland Islands which provoked criticism among the public in the United Kingdom.

After the sailing of the Task Force, the MOD had regular on the record briefings but disregarded questions as these could prove dangerous to the security of the Task Force. Five or six civilian information officers were allocated to the Task Force to screen copy, which was again screened in London by the MOD's civil servants. There was apparently no overall responsibility or anyone in authority to whom appeals could be made.

The Ministry strongly deny any attempt to indulge in psychological warfare or disinformation techniques. They did however admit to some perfectly justifiable management of the news. For example, they did not deny the reports that HMS 'Superb' had sailed from Gibraltar to the South Atlantic when she had, in fact, sailed for Faslane! It was obviously to the advantage of the Task Force if the Argentinians believed that a nuclear submarine was already on station.

Problems faced by TV companies

In general the TV companies believe that their requirements had been overlooked. Communications were virtually non existent and censorship, both by information officers in the Task Force and on land by the MOD civil servants in London, was excessive largely due to the lack of foresight and organisation.

ENG is a miniaturisation of electronic equipment which allows for the recording and re-play of picture and sound instantaneously without any processing. It was carried by TV crews. It however requires satellite transmission. Satellites are expensive and none was provided, the only one available was the American Discus which had to be tilted slightly to cover the South Atlantic. Requests were made to the MOD to ask the Americans to assist but nothing eventuated. The SCOTT military satellite was not allowed to be used as it was required for military purposes. The companies were therefore dependent on ships to Ascension Island and on aircraft from there to the United Kingdom.

As far as censorship was concerned, most agreed that two filters, one afloat and one in London, were necessary. Some indicated however that there were up to six layers of censorship! Certainly there were avoidable delays -- twenty-three days over the still photographs of the surrender of South Georgia; twenty-one days over the sinking of the HMS 'Sheffield'; twenty-three days over the attack on Pebble Island; eighteen days over the landings at San Carlos Bay; sixteen days over Goose Green and Bluff Cove operations and eleven days over the final Argentine surrender.

Correspondents complained about their relations with senior naval officers but apparently got on well with other naval officers once these realised that the TV teams would go ashore and work with landing parties. There were, however, continual complaints about the civilian information Officers who apparently had no status and failed to take responsibility, referring in most cases to London and thus contributing to the delays. For example, the use made of Ascension Island, the loss of two Harriers by accident, the casualties on board HMS

'Sheffield', were all banned yet were released, sometimes with incorrect details, in London. The final surrender was not even filmed in case this prejudiced the negotiations.

Once ashore, RM and Army officers passed copy which was then held up afloat by the civilian Information Officers, who only went ashore late in the campaign. Films had to be got back to HMS 'Fearless' by thumbing lifts in passing helicopters whose pilots always proved most helpful.

The basic criticism was lack of foresight, the failure of some senior naval officers to appreciate the importance of TV to home morale, the lack of facilities to transmit film and undue censorship which delayed film, when Argentine films had been released in London.

Problems faced by the sound broadcasters

Correspondents again complained about the lack of planning. However communications were better as MARISAT terminals were available in certain ships.

No briefings were held either in 'Invincible' or in 'Canberra' though there were five PROs allocated to various ships. Later three were concentrated in 'Fearless' but none came ashore until the very end of the campaign.

Correspondents were split between the two forces - the assault troops and the naval covering forces. In the former case, correspondents were allotted to units and provided with combat clothing, etc. But the latter were given very little help or encouragement.

Once ashore, copy was checked rapidly by combat officers but there were no arrangement for getting them back to 'Fearless' other than by thumbing lifts in helicopters. Once in 'Fearless', copy was frequently delayed, for example information on the advance on Stanley was held up for 24 hours and there was a 6-hour blackout over the cease-fire.

Correspondents got on well with the Royal Marines and the Army but condemned the Navy and the civilian Information Officers for their lack of organisation. It was suggested that MARISAT ship should have been allocated as permanent Press ship with some form of direct communication ashore. There were only sixteen to eighteen correspondents ashore, which small number could not have got in the way of any operational requirements.

Problems faced by defence correspondents in London

Defence correspondents appear to be most critical of all. Some claimed that MOD briefings were unsatisfactory and that questions were not answered. Others believed that no censorship should occur and that management of the news, even if this helped civilian morale at home and confounded the enemy, was reprehensible.

It was claimed that the re-capture of South Georgia was a shambles; that the MOD misled them over the landings at San Carlos Bay by indicating that raids rather than a D-Day landing was envisaged; and that casualties at Bluff Cove were exaggerated in order to make the Argentinians believe that the final attack on Port Stanley would be delayed. This form of news management, claimed one correspondent, was never justified. In face of such views, one had considerable sympathy for the Task Force Commanders and the Ministry of Defence!

Lessons for the future

Much of the criticism arose because of the unexpectedness of the campaign and the speed with which it was mounted. However it now seems reasonably clear that certain senior naval officers did not understand the importance of the Press and media. Most correspondents agreed that there had to be two filters, one at the sharp end and one in London. However there appeared to be no centralised control at either end which contributed to delays and to frustration. While the Press worked well with the Royal Marines and the Army, there was friction with the Navy.

Above all, communications had not been thought out, either for the Press or for TV companies. The civilian Information Officers were greatly criticised as they appeared to have little authority, no one was in charge or appeared to have overall responsibility.

The net result was a lack of public information and indeed some confusion when reports came in from Argentine sources which could not be countered in London. Luckily the campaign was short and successful and so little damage was done, though in a longer war the information battle might well have been lost.

In war censorship is essential to preserve the security of the forces involved and this was recognised by the majority of the Press and media. Some, however, did not and claimed that censorship could never be justified! This in itself justifies censorship; however this should be applied by only two

filters, someone should be in overall charge to whom appeals could be made.

Responsible Press and media are of great importance in peace and war. They must therefore be considered in planning. Such planning must include allocation, briefing and, above all, communications. If the Falkland Islands campaign has served to emphasise these lessons, this controversy will not have been in vain.

A NEW APPROACH TO FLEET AND BASE NAVAL PROTECTION

by

Ron Cain, General Partner, Seaknife Partnership, USA

It is quite clear that all the facts are not yet in on the naval conflict around the Falkland Islands earlier this year. And yet some aspects, some lessons, are already abundantly clear.

In this age when $100-million is not a high price for a ship, it was clearly proven that any conflict at all can be most expensive. That Argentina should lose one of its capital ships, several patrol craft, and a light frigate, and Britain should lose four modern warships, is quite possibly enough of an argument to force the search for some cheaper ways to project sea-power. Obviously, it remains critical to be able to sustain sea-based air power, and there is no way to dramatically reduce the cost of even small carriers like HMS <u>Invincible</u>. Additionally, the ability to sustain heavy naval gun platforms for shore bombardment was proven to be critical.

Destroyers and frigates, which were indispensible for shore bombardment and assault support, were also tasked with the vital function of protection of the capital ships, i.e. the ~~carriers~~ and the troop transports. The enormous cost of destroyers and frigates means that the loss of these vessels is becoming increasingly untenable, even though to lose one (such as HMS <u>Sheffield</u>) may well save a higher-value carrier from damage or destruction. Some loss is probably inevitable in the face of a concerted air or submarine attack. Under these circumstances, task force commanders might hesitate before committing their resources into a danger zone. This in turn may jeopardize the outcome of a conflict.

What appears to be necessary is a low-cost system for protecting the destroyers and frigates, as well as the entire task force. This could mean the creation of an additional screen to deepen the defensive zone around the task force to support and enhance airborne early warning and combat air coverage of the fleet. In the case of Britain's experience at the Falklands, in which airborne early warning was at best very patchy, a task force commander needed other options which would have enhanced his warning time and fleet protection.

From the Argentine perspective, there were other lessons. I don't intend to pursue the question of whether or not the Argentine fleet could, or should have braved the threat of the British nuclear hunter-killer submarines. Quite clearly, there was need for efficient defensive naval activity based out of

the Falkland Islands themselves. There appeared to have been virtually no activity of this nature ventured by Argentines, and, in any event, with conventional approaches the likely result would have been successful British countermeasuring in the form of Lynx-helicopterborne Sea Skua anti-ship missiles.

Technology has now reached the stage, both in small hull design and in systems, where some of these problems can be addressed. I am very cognisant of the fact that during the war around the Falklands the sea conditions were extremely unpleasant, and that general operating conditions were poor. Technology can now handle some of these conditions.

Basically, the answer lies in a new hull design for small vessels. That design is called the SeaKnife, created by a British designer, Peter Payne, now living in the United States. Let me briefly outline what SeaKnife is, and then how it could possibly have improved the operational capabilities of both participants in the Falklands conflict.

The SeaKnife design is a unique hull concept that can satisfy the requirement of speed over even very rough water with crew comfort, and hull stability. An attribute of the concept is the economy that can be realized from fabrication and operation. Speed in the sea is expensive and often is gained with increased complexity such as with an air effect, a surface effect or a hydrofoil craft and great expense of fuel. The SeaKnife design utilizes the simplicity of a unique hull form to achieve speed and is exceptionally economical. The stability of the hull shape is excellent at high and low speed. The appearance of the SeaKnife craft is not only greatly different from conventional craft because of the hull form, but also air drag loads on a high speed craft force the requirement of a clean deck and a reduced superstructure.

The strategic utilization of the SeaKnife small combatant ship could serve the defense of island communities such as the Falklands, the offshore energy platforms such as in the North Sea, and the European costal waters of NATO and others. In recognition of economic constraints, the construction and operational economies of the SeaKnife concept may permit a greater number of ships with various specialized missions. Several squadrons of SeaKnives with various weaponry and sensor configurations may be useful to the control of sea lanes with convoy protection, mine sweeping, support of amphibious operations, and the like. The maneuverability, stability, and speed of the SeaKnife ship would be usable within the confining waters of a coastal bay, a narrow sound, or even the open sea.

This paper will address some hypothetical problems

hat could have or may result from a South Atlantic-type onflict and the solutions that a SeaKnife hull design of ship an provide. The technical description of the SeaKnife hull esign and the mission capabilities of such a ship is provided n a hand-out available after this meeting.

ARGENTINE NAVY PROBLEM ASSIGNMENTS

ROBLEM 1: Restrict the British Navy from approaching and etaking the Falkland Islands.

SSUMPTIONS: The Argentine Navy has about 30 missile patrol hips of the SeaKnife design. The ships are based at protected rgentine harbors with some advanced supply bases in the alklands. The weapon load consists of several surface to urface missiles, a number of surface to air missiles, and an nti-missile ordnance. The sea states are mostly high and the isibility is mostly poor.

OLUTIONS: The SeaKnife design does allow the ship to use its peed in almost any weather for protection and to support ggressive action at a time when the weather has restricted the apability of the opponent. With 30 operational SeaKnife hips, at least 10 ships could be on patrol around the alklands at any one time. The Falklands are about 400 miles rom the southern Argentine bases or about 5 to 8 hours away hich could permit replacement of deployed ships overnight. he low radar cross section would reduce the nighttime tracking y radar and even in good visibility may not permit an ttacking aircraft's fire control to lock on to the ship. eat-seeking missiles would have a more difficult target ecause the engine exhaust is below the step of the hull. The hip would be equipped with electronics countermeasures for issile defense but perhaps the better missile defense could be chieved with maneuverability of the ships at high speed which an turn sharper than a missile. Tests have shown that a eaKnife can turn 180 degrees in three boat lengths at 70 nots. The SeaKnife on plane has a very shallow draft and is aster than a torpedo; therefore, the submarine is not a hreat. One SeaKnife missile ship could support 2 to 3 times he weapon load of a Harrier aircraft and be able to loiter in he contested area for days, not minutes. Assuming that a arrier aircraft and a SeaKnife ship cost the same, then the 10 eaKnife missile ships may be considered a force equal to 30 arrier aircraft on patrol. The ragged coastline of the alklands would provide many protective havens for the SeaKnife hip. The firepower and range of the missiles on the SeaKnife hips would keep the high value assets of the opponent further t sea. Any increase in the standoff distance would be a estriction on the opponent's aircraft because the increased

fuel load would mean a reduction in weapon load and patrol time. The SeaKnife ship will be a low value asset but would have the firepower and range of a high value asset. A SeaKnife ship would be difficult and costly to eliminate.

PROBLEM 2: The Falkland Islands have been retaken; however, the conflict continues as a harassing seaborne guerrilla action to wear down the British resolve.

ASSUMPTIONS: The Argentine Navy has built a large force of SeaKnife ships that has the ability to land and support troops any where on the Falklands. The ship sizes are from the "Seal Team" high speed reconnaissance craft to the high speed landing craft to ferry men and armor overnight from Argentina. The element of surprise and speed will be a great advantage for the attacker.

SOLUTIONS: The attributes of the SeaKnife missile patrol ship which make the ship difficult to eliminate has great application to support a seaborne guerrilla activity. The low cost to build a SeaKnife ship and the low cost for the building facility could allow the Argentine economy to support the building of hundreds of SeaKnife ships. About 100 variously configurated SeaKnife ships to carry missiles, guns, men and armor could depart one night from the southern Argentine coast and be on and around the Falkland Islands by sunup. The SeaKnife fleet could ignore the submarine threat and the large number of aggressive mobile missile platforms in a surprise attack might eliminate the island based aircraft and the ships at anchor. The threat of such an action could drain the British Treasury to the extent that the political solution to the sovereignty issue would revert to that nation capable of defending the area.

BRITISH NAVY PROBLEM ASSIGNMENT

PROBLEM 1: Maintain a British Naval force within the Falklands that would be accepted and respected by the Argentine Government.

ASSUMPTIONS: The British Navy has about 20 SeaKnife missile ships, three surveillance SeaKnife ships and several high speed troop landing ships stationed in the Falklands. The units would be perceived only as mostly defensive units by the Argentine Government, without the numbers to become aggressive; therefore, acceptable without restriction or national humiliation.

SOLUTION: The cost to build, operate and maintain about 20 SeaKnife ships should be less than one quarter the cost of one

nuclear submarine. The technically trained manpower and the proficiency training for the crews of the 20 SeaKnife ships would be far less than that required for one SSN. The SeaKnife ships could navigate the coastal waters around the islands and several ships could patrol a greater area than one SSN. They could work easily with reconnaissance aircraft and could be placed into action to repulse a seaborne guerrilla activity. This may restrain the Argentine Government from attempting such action. A Repair or building facility for the SeaKnife ships could be cost effectively accommodated on the Falklands, giving the community an outlet for its technical labor.

SUMMARY

The SeaKnife design of ship can offer the speed on the sea that is presently associated with the helicopter but with the safety and economy of a ship. There are missions which will always be those of the helicopter and the SeaKnife could greatly augment the mission by serving as a high speed helicopter support ship. The capabilities of the missile technology are growing at a rapid rate and the missile platform that can take advantage of that technological growth should be developed. The SeaKnife is that kind of platform.

TECHNICAL DESCRIPTIONS

The SeaKnife hull has a wedge shaped, step relieved flat bottom which presents a small area to the sea when the hull is lifted from, or enters, a rough sea at high speed. The sides of the wedge shaped hull flare away from the bottom, softly at first, and becoming increasingly sharper to the intersection of the deck where the flare exits horizontally. The vertical softness of the hull design allows the low displacement of the bow to deeply penetrate the waves before the displacement is maintained with the bow wave which slides up the hull and encounters the outward curve of the flare and is thrown out from the hull to lift the hull and keep the deck reasonably clear of heavy water. The entry of an airborne hull into the water at high speed does not greatly shock the craft. The small bottom area forward and slight displacement of the bow will allow the vertical fall to continue for several feet which will slowly decelerate and absorb the energy, changing the direction and velocity slowly. Plowing the bow into the sea does not stop the forward momentum of the hull. The sharp bow parts the sea and absorbs the forward energy with skin friction, not displacement. The entry of the hull into a sea accelerates the mass of water of the sea slowly and the SeaKnife loses forward momentum slowly.

SEAKNIFE DESIGN

The three major classifications of size will be the open boat of about 35 to 55 feet, the missile patrol craft of about 65 to 95 feet, and the small combatant shp of about 100 to 200 feet.

The small open craft could be deployed from a mother ship well offshore. It could carry a special boat services team, weapons, materials and a small raft. A run to shore at night below the radar would add the element of surprise. The hull would be constructed of light strong materials with a reduced superstructure that would not return radar.

There was, early in the Falklands conflict, a heavy element of special forces work done before the full invason at Port San Carlos. And, if I understand correctly, there were some mission aborts by some special forces units because of problems with outboard motors on the very light craft. Obviously, we are at a stage where we cannot afford minor technial hiccups jeopardizing a major mission. And while the SeaKnife might have been just a notch too large for those missions, it is conceivable that it could have done the job with greater reliability, and without the prospect that the deploying mother ship be exposed to land-based defenses.

The missile patrol craft could be constructed from reinforced epoxy, aluminum or steel, depending upon the craft size, weapon load and mission. The coastal protection could be obtained with a smaller size that could use the low radar reflectivity of epoxy composites to improve its mission effectiveness.

Imagine an 80 knot vessel equipped with surface to surface, surface to air, and a range of sensors to enable it to provide full picket duty, either standing off from a fleet or land base.

A vessel of this size, say up to 95 feet, could be brought to a conflict zone -- if it is away from a home base -- as cargo aboard either a freighter or an amphibious forces support vessel.

The prospect exists for a number of these light vessels to be on station around the fringes of a task force, providing such services as detection, surface to air defense, defense against surface combatants, and, perhaps most importantly, decoy operations against incoming anti-shipping missiles, such as <u>Exocet</u>.

The obvious question is raised: how can vessels of

this size survive in heavy seas for any duration, and perform their task. Let me stress that the seakeeping qualities of the vessel are such that crew comfort is significantly high, even during high-speed operations in heavy weather. Crews can be changed at fairly regular intervals, or deployment from the mother vessel can be restricted to times of potential danger.

The small combatant ship uses are obvious and many. Larger hull construction wold be of aluminum or steel needed at that length to support the weight of the hull, the fuel, the electronics, the weapons and the crew with reasonable crew accommodations.

The small combatant ship (SCS) is often tagged as: short range, unstable, have poor crew comfort, easily targeted, a poor use of funding assets, etc.. For these reasons, traditionalists have not considered the SCS a great threat or a good investment. With respect to the capabilities of the SeaKnife, these ideas should be reexamined.

The firepower of a missile laden SeaKnife would be far-reaching and extremely powerful for such a small ship. With firepower and guidance control, constantly improving, the future role for such a vessel can only grow in importance.

Sea Legs: The duration of patrol of the SeaKnife SCS does not have to be short. It requires a moderate amount of power to achieve plane and is up to 44% more efficient than other planing hulls at optimum cruise speed. Long sea leg capability can be accomplished when transported as deck cargo or when wet-welled in a support tender.

Stability: Rapid motion in response to the sea can become physically destructive when an SCS tries to use its major capabilities, speed and maneuverability. An unstable SCS cannot track a target or avoid an attack. The SeaKnife has the stability and softness of motion at speed that will low target tracking and attack countermeasures.

Habitability: SeaKnife provides increased physical comfort for the crew at any speed and crew comfort relates directly to reliable performance.

Cost and Effectiveness: The SeaKnife SCS could be obtained at a lower cost than any other design of platform that would have the same mission, speed, weapon load, and number of personnel. Large numbers can be attainable because of the low technical level of labor, equipment, and materials required to construct the hull. The cost for the finished unit will be dependent upon the required firepower and sensor package, but the mass production of components should keep costs well below $10M.

Use: SeaKnife SCS's would normally be deployed in packs of three or more. This would increase the real and perceived firepower. If one of three were to be a seaborne version of AWACS then intelligence would be greatly enhanced.

What the South Atlantic war showed us was that technology has truly come of age in certain areas: in air-launched missiles, both from helicopters and fixed wing aircraft. It has taught us the real exposure which major surfce units have to damage or destruction.

We cannot afford to confine our view of progress. We cannot say that, for example, we will only evolve technologically in the area of missiles and anti-missile missiles, and sensors and onboard systems. War requires that we use all elements to achieve mobility, surprise and firepower. This means that we must think creatively about hulls, power systems and methods of deployment.

The greatest lesson of the South Atlantic War is that we must continue to adapt. Our ships must match our technical capabilities.

THE SOUTH ATLANTIC WAR: A SUMMARY OF LESSONS

by

GREGORY R. COPLEY
Publisher of Defense & Foreign Affairs Publications;
Conference Chairman

What is perhaps most significant from the two intense days of discussion at the Conference on the Lessons of the South Atlantic War is that there is so very much to learn about the war in the South Atlantic, and that we have discovered so little of it. We could, in two days, only scratch around the surface, and learn just what questions we should be asking ourselves. Obviously, it would be good if we could attend a conference and, after a few days, emerge with a list of what to do and what not to do in any future conflict, or how we should reorganize our country's defenses. Life is not so simple. And this Conference is merely the first step in asking questions about the equipment, the strategies and the men involved in the Conflict.

Firstly, there are important areas which we did not cover, and had no time to cover, nor access to sufficient information. This is the most obvious aspect of an inquiry which begins while the smell of cordite is still fresh upon the wind. It raises the question of whether we should have waited, and held our Conference later, after history has had a time to perpetuate some myths, or whether we should pursue our inquiry while matters are fresh. Our decision was that we should begin while matters are fresh, and be prepared, always, to amend and update our evaluations in the light of emerging facts.

Of those points which we did not cover, let me highlight some of them:

* Consumption of materiel; the rates of utilization of food, ammunition, fuel, and so on.

* This was not an armored war, so we can only learn the lessons of the small British force, and we are still no further advanced in knowing how armor may face armor in the future.

* We needed a fuller appreciation of ship construction, and more debate on the matter.

* The ship repair situation: how did it work in practice?

* How the infantrymen actually planned and fought their

way through the situations, from both sides.

* The role of intelligence from a tactical standpoint,

And much more.

Secondly, the points which we did address, were by virtue of time addressed without sufficient depth, although all speakers, I feel, tried to give their topics maximum effort. In many instances, the only source of information available outside of classified UK briefings was the manufacturers of the equipment used in the War. There was no alternative but to go to this source of information, and accept the attendant favorable biases which surrounded the information. After all, we still got information which was not otherwise available, and I would like to thank those manufacturers for giving us their time. We would have liked more input from Argentine sources at first hand. As it was, we have had little to dispel the rumors and incomplete stories of actions which have surrounded many aspects of the war. Such as the use by Argentina of submarines, for example. We have heard reports on the attempted firings of torpedoes by Argentine Navy Type 209 submarines against British targets. Even in the past two days I have heard varying estimates from one attempted firing, to 14 unsuccessful firings. If nothing else, we do know that the Argentine Navy was extremely dissatisfied with its torpedoes. The UK Navy, on the other hand, used one World War II technology torpedo very successfully, but still knows nothing of how well its new Tigerfish torpedoes will work.

"Defense & Foreign Affairs" publications will continue the inquiry into the war, and continued reporting on it will appear in future editions.

But we have learned some real lessons, or gained some preliminary insights during the two days of Conference. Among them, are the following:

*An essential ingredient in commencing conflict is a strong and unified political base, coupled with an unwavering political leadership. We saw both leaders providing strong and seemingly unchallenged leadership figures, however, not just Mrs Thatcher. So while political leadership is an essential ingredient in success, it is not the only one. All other factors must be weighed also.

*It seemed at the outset of the war, that Britain would be sorely pressed to re-take the islands from Argentina. In hindsight, the outcome was far more clear than it was when war began. Certainly, with luck and some better equipment and training, Argentina could have inflicted ten times the damage

on the British forces. But ultimately, given the massive British resources, its basically stable economy -- compared with Argentina -- its alliance position and its well-integrated and experienced armed forces, the eventual outcome would still have been the same. It remains to be seen whether Argentina can now achieve its objectives with a mixture of political and military pressures in future years, short of forcing an already strong British leadership into a political situation where it has no alternative but to fight.

*What we learned was that NATO powers, no matter how advanced, are still vulnerable in theater or tactical situations to unsophisticated threats.

*Helicopters are needed in great numbers on any future battlefield, but they must be integrated with skill. It has not been stated at this conference, but it was a fact that helicopter assets in the islands were not always judiciously deployed by the Bristish force commanders, and it is a fact that the war did nothing to resolve the debate as to whether helicopter assets should be under naval or land force command in such a situation. There was considerable tension on this matter in the British task force, once it had arrived at the islands, and it was not satisfactorily resolved.

*Air superiority is crucial in any such operation, and it is clear that the UK did not have control of the air, although nor did Argentina.

*Maintainability is critical: Argentina's single Roland SAM system did not keep going through the conflict simply because no spares were sent with it. When the smallest glitch occurred, this valuable system was put out of the conflict.

*Training is critical at all levels. The British forces on the ground were lucky in that, having worked together on many occasions in the past, the different units could at least keep up with each other, although this was didfficult. For example, as Sir Frank King said, the Army and Royal Marine Blowpipe operators had difficulty keeping up with the Para units going to Darwin and Goose Green. It was a good case for an elite unit to have an integral blowpipe unit, although this is expensive. On the other hand, the other units had enough capability to keep up and actually be on hand when needed. But this integration of military units goes to a much wider scale: tri-service operations are necessary if combined operations are to be a success. Significantly, the Argentine Air Force worked well with the Argentine Navy, as the RAF worked well with the RN.

*The ordinary soldier is still the most critical element. And he needs the training, and esprit de corps to be able to force-march for 50 miles with a full pack under adverse conditions if his helicopter service isn't available.

*Some technologies have definitely showed their maturity in the conflict, including all forms of airborne anti-shipping missiles.

*The maturing of these anti-ship missiles presents a clear and urgent priority that all vessels be adequately decoy-equipped.

*There is no question but that ship survivability is advanced dramatically over, say, 30 years ago. On the other hand, technologies exist which can even further enhance ship survivability after a missile or gunfire or bomb hit. And this can be retrofitted to existing vessels.

*The money and initiatives can be found, and things can be done, if the objective is clear. And if ongoing direction of the war is handled directly and simply. The example being Mrs. Thatcher's terse command to her task force, and the subsequent lack of interference.

*The line of command must be clearly delineated in peace time, and reinforced in time of conflict.

*The political will of a country, however, must be supplemented in advance by having the correct legislation in place so that a government can react without hesitation, and without diverting national attentions in a debate over legitimate political action.

*The lack of airborne early warning was critical to both sides in the conflict.

*Certainly, V/STOL fighter capability was proven. Without it Britain could not have fought the battle, as both sides acknowledge. And yet this does not mean that conventional sea-based air power is to be ruled out if it can be afforded. V/STOL proved that with a minimum of cash, sea-based air power can be projected effectively, and maintained in a fluid front line.

*We were fortunate to see that, while it was a simple war, the need for ECM and other decoys and jammers was so convincingly proven.

*We have seen that it is relatively easy, and certainly feasible, to provide containerized protection for all

kinds of vessels, even merchant vessels pressed into combat service.

*We saw, perhaps dramatically, the essential nature of the British Merchant Marine to the British success militarily. This reinforces the need for priority national attention to a country's merchant marine, and its labor relations, and the avoidance from a national strategic viewpoint of flags of convenience. For while a country may commandeer its own ships which are under flags of convenience, it may not be able to commandeer the crews.

*The proliferation of Western weapons makes it increasingly likely that most future conflicts will see confrontation between such systems rather than between Western and East bloc weapons.

*Aircraft which can deliver their weapons from a stand-off position, outside the immediate conflict zone, will more likely survive and be effective rather than those which go into the hot zone. This reinforces the need to look at such systems as the Cruise Missile for anti-airfield work.

*Airfields are hard to render useless, despite the work done in this direction.

*Iron bombs have, for all the disparaging remarks about them, not been proven useless. Quite the contrary. They were extremely effective, although the need and ability to flexibly adapt weapons for a particular situation is critical.

*Improved secure communications are necessary. Argentina lacked this altogether. Britain ran silent rather than take risks. The situation has to be improved for all parties.

*Media coverage to a particular weapons system in a war can directly affect whether it is bought or not by a third country. And this may not always result in the best equipment being selected.

*Britain's ability to deploy so far from home proved the efficacy of a quick reaction force. It can obviously be tailored to a specific need. It does not have to be a long-range RDF.

*Strategic intelligence is critical, and I believe was not used well by either side to give conflict warnings.

*We saw all-weather capabilities exhibited in ground fighting, but not at sea or in the air. Had Argentina had

night all-weather capability, it is doubtful that the UK could have adequately countered it.

*In-flight refuelling was the key to whatever successes both sides had in their air power projection. And this is not an isolated case. Take, for example, Malaysia, which also has A-4s coming on-line. Their range will barely give the Malaysian Air Force the capacity to cover its Eastern territories from the mainland, let alone project a deterrence. Ways to increase range can be the difference between success and failure. Aerial refuelling is one way to do it. Adequate supplies of the right type of drop tanks is also critical, as the Argentine Air Force discovered.

*The fitting of helicopter pads to merchant ships was critical to Britain's capabilities.

*From a broad strategic viewpoint, if Argentina wants to play in the broad strategic game, it will first need to step out of the isolation in which it has lived for some years.

*Significantly, the war increased the US attention in the region, and it is likely that the US will play a greater and more skillful rôle in the southern cone than it has in the past. Clearly, the major strategic considerations are there for it, just from a resources standpoint, apart from other factors, including, most particularly, the fact that the region will grow significantly in importance as the Panama Canal becomes more questionable or unreliable as a sea lane linking the Atlantic with the Pacific.

*Overall, it is clear that the importance of the South Atlantic region generally is rising.

*The whole area calls for collaborative development, down into Antarctica which is crying out for development, possibly largely because it does not present the political problems in developing populated regions, and because of the abundance of certain resources, such as food, in the form of crill, for example.

*We saw in the war the value of nuclear power aboard the SSNs as a deterrent, although it would be easy to ascribe too much credit to British submarines in bottling up the Argentine fleet. It would seem that, having been discovered at an early stage that it would not be possible for Argentina to achieve victory in the long term, the Navy decided not to expend its assets uselessly. The Air Force on the other hand decided that it had to give the war its best shot.

*In both sides, the media was not adequately included

in any strategic political planning, and yet it is obviously a critical element in maintaining national political will during conflict. There proved on both sides to be a great need for coordination, and a more sensitive use of information in order to maintain credibility and morale.

There are, of course, many, many more lessons. But these point us in the direction where inquiry should be continued.

ARMADA ARGENTINA

Nº 54 "S"/82
Letra JEIN.IM4.4

SECRETO

URGENTE

BUENOS AIRES, 5 de noviembre de 1982.-

OBJETO: R/. Conferencia desarrollada en LONDRES.-

AL SEÑOR JEFE DE LA COMISION ANALISIS ACCIONES DE COMBATE.

Durante los días 2 y de septiembre ppdo., se realizó en la ciudad de LONDRES una Conferencia titulada "LECCIONES DE LA GUERRA DEL ATLANTICO SUR", organizada por la publicación "DEFENSE AND FOREING AFFAIRS" de WASHINGTON (EE.UU.).-

Esta Jefatura destacó un asistente a dicha conferencia, cuya recopilación,por considerarse de interés, se adjunta al presente.-

AGREGADOS: Lo que se indica.

ARMADA ARGENTINA
ESTADO MAYOR GENERAL DE LA ARMADA
JEFATURA DE INTELIGENCIA

JUAN ALBERTO IGLESIA
CAPITAN DE NAVIO
JEFE DE INTELIGENCIA DEL EMGA

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Mismo archivo

SECRETO

Conference on the Lessons of the South Atlantic War

Sponsored by Defense & Foreign Affairs Publications

Washington • London

Programme

Held at the Royal Aeronautical Society, London
September 2 and 3, 1982

Conference on the Lessons of the South Atlantic War

Program: Day One, September 2, 1982

08:00 ***Registration***

09:00 ***Opening Remarks***
By Conference Chairman Gregory R. Copley, editor-in-chief and publisher, *Defense & Foreign Affairs* Publications. Conference Moderator for the first day's sessions.

09:10 ***The Strategic Perspective of the War***
Dr Stefan T. Possony.

09:40 ***Lessons of the Falklands Campaign***
Air Vice Marshal S.W.B. Menaul, CB, CBE, DFC, AFC, RAF (ret.)

10:20 ***Air Operations: the Use of Air Power***
John Fozard, British Aerospace.

11:00 ***Refreshment Break***

11:25 ***Air Operations: the Use of Air Power***
Panel Discussion with:
Air Chief Marshal Sir Denis Smallwood, GCB, KCB, DSO, DFC, RAF (ret.)
John T. Stitzel, Fairchild Republic Company, USA;
John Fozard.

12:00 ***Lunch Break***

13:45 ***Air Defence: The Use of Missiles***
Major General Ken Perkins, CB, MBE, DFC;
General Sir Frank King, GCB, MBE.

15:00 ***The Impact of the War on NATO***
Major Sir Patrick Wall, MC, VRD, RM (ret.), MP.

15:40 ***Refreshment Break***

16:05 ***Command and Logistics From the UK Base***
Neville Trotter, MP

17:00 ***End of the Day's Sessions***

Program: Day Two, September 3, 1982

[illegible] ***Opening Remarks***
By David Harvey, Editor and Vice-President, *Defense & Foreign Affairs* Publications, and Moderator of the second day's sessions

[illegible]:25 ***Naval Operations: Ship Protection and Damage Limitation***
Panel Discussion with:
Vice Admiral Frederick Turner, USN (ret.);
Dr Ralph Gilby, E. I. DuPont de Nemours & Co., Inc.

[illegible] ***Naval Operations: A New Approach to Fleet and Base Protection***
Ron Cain, Seaknife Partnership.

[illegible]:30 ***Helicopter Operations: How They Performed***
Major General J. M. Strawson, CB, OBE.
Panelist: Brig. Gen. Sam Cockerham, USA (ret.).

[illegible]:15 ***Refreshment Break***

[illegible] ***Anti-Shipping Missiles: a Matured Threat***
Major General Ken Perkins.
Panelist: Air Chief Marshal Sir Denis Smallwoo' GCB, KCB, DSO, DFC, RAF (ret.)

[illegible]:30 ***Luncheon Break***

Afternoon Sessions Moderator: Charles Ablard, Esq., former General Counsel to the US Army.

[illegible] ***Naval Operations: The Outlook for the Southern Cone***
Professor Carlos Lopez.

[illegible]:40 ***The Use of Armour in the Falklands***
Brigadier Harry Hopkinson, Alvis Ltd.

[illegible] ***Refreshment Break***

[illegible] ***The Impact of the War on British Defence Sales***
Lt. Col. Robert Jarman, director, DST Ltd.

[illegible] ***Lessons Learned on Information Management***
Sir Patrick Wall, MP.
Panelist: Dr Stefan T. Possony.

[illegible]:15 ***Conference Concluding Remarks***
Gregory R. Copley, Conference Chairman.

Programme Subject to [illegible] Without Notice

For background information on the Speakers, [illegible] consult the Speaker Biography booklet, in your A[illegible] Kit.

Attendees taking part in the ***Special Reception*** *at the [illegible] Force Club at 6.30 pm on September 2 should remember to bring their Invitation with them. Those Co[illegible] [illegible] ndees not yet registered for the Reception, but desirous of attending, should see the Conference Re[illegible] [illegible] re at the Royal Aeronautical Society facilities, preferably by the afternoon re[illegible] break at the latest.*

10 de setiembre de 1982 IP-82-18

América Latina

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informe político

SUMARIO

LUEGO DE LA GUERRA POR LAS MALVINAS COMIENZAN LAS LECCIONES Y LAS VENTAS DE ARMAS

'Las principales lecciones de una guerra la sacan los vencidos', reza una máxima militar. Los hechos tienden a confirmar esta aseveración. Los días 2 y 3 de setiembre se reunieron en Londres 250 representantes de 33 países para discutir 'Las lecciones de la guerra en el Atlántico Sur'. El seminario fue organizado por Defense and Foreign Affairs, una empresa editorial norteamericana especializada en asuntos militares. Pero el evento más que sacar lecciones de lo ocurrido en los campos de batalla de las Malvinas derivó en un esfuerzo, especialmente por parte de los ingleses, por justificar el rendimiento de los diversos armamentos. La etiqueta 'probado en las Falklands' era visible en varios catálogos.

La congregación de generales, embajadores, agregados militares y sobre todo representantes de las principales empresas fabricantes de armas escucharon con interés la primera intervención: La perspectiva estratégica de la guerra. La exposición estuvo a cargo del Dr. Stefan T. Possony, quien ha pasado 40 años trabajando en inteligencia, 18 como asesor de la fuerza aérea de Estados Unidos, y quien es además un ex miembro de la Liga Mundial Anticomunista y co-fundador de Defense and Foreign Affairs. Possony dedicó su charla a un tema: la Antártida. Las Malvinas son la puerta al continente blanco, cuya importancia es mayúscula. Aparte de las riquezas potenciales que yacen bajo los hielos antárticos, la latitud austral provee algo que no se encuentra en otras partes del globo: posibilidades de comunicación extraordinarias tanto con el espacio extra-terrestre como hacia las profundidades de los océanos. Los campos magnéticos permiten la instalación de aparatos sonares gigantes, vitales para la comunicación con los submarinos nucleares. Estados Unidos cuenta con una antena de 13km de extensión, en una base donde sirven más de 5.000 hombres anualmente. En total existe 14 bases en la Antartida (6 argentinas, 3 chilenas, 2 británicas, una estadounidense). La importancia adjudicada a la Antártida por el Dr. Possony no fue disputada por los participantes.

?

En cuanto a las lecciones de la campaña por las Malvinas la mayoría de los asistentes estimó que se concentraban en el desempeño de las armas. La Argentina, declaró el vice mariscal de aire inglés (r) S. Menaul, no es una potencia, ni siquiera un poder de segunda categoría. Muchos delegados asintieron. Una guerra con el Pacto de Varsovia sería muy diferente. Los hechos del Atlántico Sur no son ni un reflejo pálido de lo que ocurriría en un enfrentamiento con el Este.

Dichas las consideraciones generales, empezó el esfuerzo por promover las ventas. Los británicos explicaron el éxito de sus misiles. Los Rapier habrían derribado 13 aviones argentinos. Los Blowpipe 8. Los aviones Harrier habrían dado cuenta de 27 aeronaves argentinas. Los tanques Scorpion funcionaron sin fallas a lo largo de todas las operaciones. Los helicópteros Sea King tuvieron 100 por ciento de disponibilidad. En la audiencia, franceses y norteamericanos sonreían incrédulos.

A la hora del debate quedó claro que la preparación británica dejaba bastante que desear. La campaña israelí en Beirut fue utilizada como ejemplo y comparada con las operaciones inglesas. Los israelíes lograron eliminar

COMENTARIO PERIODÍSTICO DE LA CONFEREN-CIA.

Expositores de la conferencia:
Gregory R. Copley: presidente de la conferencia y editor jefe de Defense and Foreign Affairs.
Dr. Stefan T. Possony: 40 años en inteligencia, 18 como consejero de la fuerza aérea de Estados Unidos.
John Fozard: gerente de la division de ventas de British Aerospace, Kingston-Brough.
John T. Stitzel: ejecutivo de la oficina regional de la Fairchild Republic Company, Estados Unidos.
Mayor-general Ken Perkins (r): asesor de British Aerospace Dynamics Group.
General Sir Frank King (r): asesor m[illegible]r de Short Brothers Ltd G.B.
M[illegible] Sir Patrick Wall: diputado conservador británico.
Neville Trotter: diputado conservador británico.
Teniente coronel Robert Jarman (r): director de la empresa consultora Developments, Scientific and Technical Ltd. G.B.
David S. Harvey: vice-presidente de Defense and Foreign Affairs.
Vice almirante Frederick C. Turner (r): presidente de la empresa consultora norteamericana Foxcon Ltd.
Dr. Ralph Gilby: supervisor de ventas de Kevlar Special Products, EU, en la división de blindados.
Ronald W. Cain: accionista de Seaknife Partnership Ltd, EU. P[illegible]ticipó en el contingente de [illegible]ra insurgencia del ejército de EU en el sudeste asiático.
Mayor-general John M. Strawson: asesor de Westland, los fabricantes del Sea King.
Brigadier general Sam Cockerham (r): ex comandante de la primera brigada aérea en Vietnam, hoy asesor en asuntos de movilización estratégica.
Prof. Carlos López: miembro de la Academia Chilena de Historia. Partidario de la formación de un tratado defensivo del Atlántico Sur.
Brigadier Harry Hopkinson: división de ventas de Alvis Ltd, Gran Bretaña, los fabricantes del tanque Scorpion.
Vice-mariscal del aire Stewart Menaul (r) formó parte de la tripulación del avión que lanzó la primera bomba atómica británica. Comentarista militar y asesor de avrios empresas.

los misiles antiaéreos sirios Sam 6 en los primeros días del conflicto. Los ingleses no desbarataron las baterías de Roland argentinas. Israel dio cuenta de más de 70 aviones sirios en dos días de combates. Argentina mantuvo sus aparatos operacionales en las propias Malvinas hasta el final del conflicto. Conclusión: los ingleses no disponen de medios adecuados para la 'supresión de defensas'. La ausencia de armas electrónicas capaces de detectar radiaciones fue obvia. También la inteligencia táctica de Londres fue cuestionada. ¿Acaso no se sabía que la Argentina disponía de Super Eténdard armados con Exocet? La respuesta parece ser que no. El crucero Sheffield se encontraba en comunicaciones vía satélite con el Reino Unido cuando fue alcanzado. Su radar estaba apagado. Pero quizás la mayor frustración inglesa fue no haber podido destruir la pista de aterrizaje de Port Stanley. Pese a la utilización de bombas especiales, la pista estuvo en operaciones a lo largo del conflicto. El vice mariscal Menaul trató de explicar el fracaso: nunca se intentó poner la pista fuera de acción. El bombardeo del Vulcan sólo fue una advertencia. Debe recordarse que el ocurrió al día siguiente que el ministro de Defensa John Nott declaró que no se preveía un ataque contra las bases aéreas argentinas en el continente.

Naturalmente la Argentina no estuvo representada en la conferencia pero Gregory R. Copley, editor en jefe de Defense and Foreign Affairs, se entrevistó con altos oficiales de la Fuerza Aérea Argentina (FAA) quienes estuvieron dispuestos a entregar su versión de los hechos. Según este informe, los estrategas de la FAA sólo comenzaron a evaluar la situación una vez que la flota británica había zarpado hacia el Atlántico Sur. Hasta entonces no se había estudiado el papel de la aviación en la preservación de las islas. La primera conclusión de la FAA fue que no era posible mantener la superioridad aérea. De sus 225 aviones sólo 81 podían servir sobre las Malvinas. La FAA disponía de una escasa capacidad de reabastecimiento de combustible en vuelo: 2 viones tanques Hercules KC-130. Los Mirages III y V, incluso con sus tanques auxiliares, apenas tenían carburante para una pasada sobre las islas. Esto los obligó a rehusar combate sistemáticamente. Dos pilotos confrontaron a los Harrier británicos pero en ambos casos terminaron abandonando sus aviones por falta de combustible. Al parecer la Argentina no pudo obtener tanques auxiliares en el mercado internacional, hecho que a Copley le hace sospechar que Buenos Aires tuvo serias de dificultades de aprovisionamiento. La falta de planificación de la FAA para la captura de las islas quedó de manifiesto: mientras el país podía fabricar los excelentes aviones Pucará no estaba en condiciones de producir tanques auxiliares.

Los Mirages tenían sólo una forma de llegar a las Malvinas: volando alto (19.000 pies) y en línea recta, guiados por el único radar de que disponían en las Malvinas (un Westinghouse TPS-43). Una vez sobre las áreas de combate los aviones debían guardar silencio radial. Los ingleses, por su parte, contaban con el respaldo de los barcos y en algunos casos de los aviones de observación Nimrod. Según los oficiales argentinos la FAA perdió 36 oficiales 14 sub oficiales y 5 soldados. 34 aviones Mirage y A4 fueron perdidos (41 por ciento de la fuerza comprometida). Las bajas inflingidas a los ingleses: 12/14 aviones, 12 helicópteros, seis barcos hundidos, 10 dañados y 7 probablemente alcanzados.

Los oficiales de la FAA estimaban que buena parte de la flexibilidad de la fuerza británica se debió al aprovisionamiento de carburantes por parte de Estados Unidos. Ni la Unión Soviética ni Cuba habrían brindado ninguna ayuda. Un alto oficial comentó: 'Acabamos de terminar de combatir a los comunistas. No hemos recibido nada de ellos'.

En el seno de la conferencia, la defensa de la Argentina corrió por cuenta de los franceses. No porque estos se identificaran con Buenos Aires sino que lo hicieron por el buen nombre de sus armas. Por ejemplo, decía un repre-

Países participantes

Estados Unidos	Portugal
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sentante de la empresa francesa Sagem, ¿cómo puede decirse que el Harrier es superior al Mirage? es cierto que bajaron a varios, pero iban cargados sólo con bombas y carburante. No llevaban misiles y eludían el combate. Los misiles Roland franceses habrían derribado 4 aviones ingleses.

Un capitán de la marina israelí comentó a *Informe Político* que las armas producidas por su país habían tenido un buen desempeño y esperaba que la Argentina se convertiría en un mercado importante. Pero al igual que su colega francés tenía una pregunta que lo mortificaba: ¿tendrán plata para pagar?

Por su parte el brigadier Gamoro del ejército nigeriano, expresó las dudas de varios representantes de la infantería: ¿por qué las fuerzas de tierra argentinas no combatieron mejor?. Su especulación era que nunca creyeron que habría una guerra. 'Ellos deben haber confiado en Estados Unidos, pero eso es un grave error', fue su conclusión.

El diputado conservador Neville Trotter resumió lo que a su juicio permitió el triunfo británico: niguna restricción económica (el Reino Unido gastó US$1.800m en la operación), pleno apoyo político por parte de la nación, libertad para los mandos militares para conducir la guerra.

Pero aunque las Malvinas es una guerra recién acabada, ya pertenece al pasado. La batalla del mañana la libran hoy los vendedores de las nuevas generaciones de armamentos □

Conference on the Lessons of the South Atlantic War

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Programme

Held at the Royal Aeronautical Society, London
September 2 and 3, 1982

SECRETO

Conference on the Lessons

Program: Day One, September 2, 1982

08:00 ***Registration***

09:00 ***Opening Remarks***
By Conference Chairman Gregory R. Copley, editor-in-chief and publisher, *Defense & Foreign Affairs* Publications. Conference Moderator for the first day's sessions.

09:10 ***The Strategic Perspective of the War***
Dr Stefan T. Possony.

09:40 ***Lessons of the Falklands Campaign***
Air Vice Marshal S.W.B. Menaul, CB, CBE, DFC, AFC, RAF (ret.)

10:20 ***Air Operations: the Use of Air Power***
John Fozard, British Aerospace.

11:00 ***Refreshment Break***

11:25 ***Air Operations: the Use of Air Power***
Panel Discussion with:
Air Chief Marshal Sir Denis Smallwood, GCB, KCB, DSO, DFC, RAF (ret.)
John T. Stitzel, Fairchild Republic Company, USA;
John Fozard.

12:00 ***Lunch Break***

13:45 ***Air Defence: The Use of Missiles***
Major General Ken Perkins, CB, MBE, DFC;
General Sir Frank King, GCB, MBE.

15:00 ***The Impact of the War on NATO***
Major Sir Patrick Wall, MC, VRD, RM (ret.), MP.

15:40 ***Refreshment Break***

16:05 ***Command and Logistics From the UK Base***
Neville Trotter, MP

17:00 ***End of the Day's Sessions***

Programme Subject to

For background information on the Speakers, in your A

*Attendees taking part in the **Special Reception** at the remember to bring their Invitation with them. Those Co but desirous of attending, should see the Conference R preferably by the afternoon*

...ons of the South Atlantic War

...rogram: Day Two, September 3, 1982

...Affairs

Opening Remarks
By David Harvey, Editor and Vice-President, *Defense & Foreign Affairs* Publications, and Moderator of the second day's sess.ons

Naval Operations: Ship Protection and Damage Limitation
Panel Discussion with:
Vice Admiral Frederick Turner, USN (ret.);
Dr Ralph Gilby, E. I. DuPont de Nemours & Co., Inc.

Naval Operations: A New Approach to Fleet and Base Protection
Ron Cain, Seaknife Partnership.

Helicopter Operations: How They Performed
Major General J. M. Strawson, CB, OBE.
Panelist: Brig. Gen. Sam Cockerham, USA (ret.).

Refreshment Break

Anti-Shipping Missiles: a Matured Threat
Major General Ken Perkins,
Panelist: Air Chief Marshal Sir Denis Smallwoo ' GCB, KCB, DSO, DFC, RAF (ret.)

Luncheon Break

Afternoon Sessions Moderator: Charles Ablard, Esq., former General Counsel to the US Army.

Naval Operations: The Outlook for the Southern Cone
Professor Carlos Lopez.

The Use of Armour in the Falklands
Brigadier Harry Hopkinson, Alvis Ltd.

Refreshment Break

The Impact of the War on British Defence Sales
Lt. Col. Robert Jarman, director, DST Ltd.

Lessons Learned on Information Management
Sir Patrick Wall, MP.
Panelist: Dr Stefan T. Possony.

7:15 *Conference Concluding Remarks*
Gregory R. Copley, Conference Chairman.

Subject to ... Without Notice

Speakers, ... consult the Speaker Biography booklet, in your A... Kit.

***...tion** at the ... Force Club at 6.30 pm on September 2 should ... Those Co... Al ...ndees not yet registered for the Reception, ...nference R... ...re at the Royal Aeronautical Society facilities, ...fternoon re... break at the latest.*

SECRETO

"LECCIONES DEL CONFLICTO DEL ATLANTICO SUR". LONDRES 2/3-9-82.

PERSPECTIVAS ESTRATEGICAS DE LA GUERRA

El Dr. Stephan POSSONY sintetiza lo que luego va a explicar y el primer punto es que GALTIERI tuvo participación total en la planificación y en los momentos decisivos de la guerra. También es creencia del expositor que un cúmulo de desaciertos, ineficiencia y especialmente desconocimiento por mala interpretación con respecto a la reacción del opositor, fue el motivo principal del fracaso de la operación.

La segunda conclusión es que Argentina recibió sólo limitada colaboración por parte de Perú y Venezuela y, desde el punto de vista del disertante, esto es solamente una sub-estrategia dentro de todo el conflicto.

El tercer punto del expositor es que la Argentina Transfirió su primera prioridad que era el tratamiento del conflicto constante con Chile, a una prioridad circunstancial, momentánea, que era el conflicto por las Malvinas. Sin embargo, el conflicto inicial prevaleció, interactuó y fue siempre tenido en consideración por parte de las FF.AA. argentinas durante el conflicto con Inglaterra.

El expositor pasa ahora a explicar someramente el conflicto existente entre Argentina y Chile. Comienza diciendo que el fondo del mismo son los reclamos no conciliados entre ambas naciones sobre lo que es territorio antártico. Pasa a mostrar slides donde se ve la zona del cono sur de América Latina y parte del casquete polar antártico en donde se ven las cuñas de territorio pretendido o reclamado por Argentina y Chile, haciendo notar a la concurrencia que dichos territorios se superponen en gran medida.

También indica que el Tratado sobre la Antártida debe ser renegociado en 1999, lo cual es una fecha prácticamente inmediata.

Los reclamos argentinos más firmes comenzaron en 1974, donde la Argentina proclamó que parte de la Antártida es parte también del territorio Argentino. Chile en ese momento correspondió con una declaración de igual tenor. Se explica también que hay otras naciones que reclaman territorios

sobre la Antártida, por ejemplo, Inglaterra que también reclama territorios sobre la Antártida, pero que no ha declarado lo que reclama como parte de su territorio. Por otro lado, la parte reclamada por Inglaterra también se superpone consistentemente sobre aquellas cuñas reclamadas por Argentina y Chile.
Para graficar esta superposición de reclamos sobre un mismo pedazo del continente antártico, el disertante explica que a la península antártica, los argentinos la denominan Tierra de San Martín, los chilenos la denominan Tierra de O'Higgins, mientras que los ingleses la denominan Tierra de Graham.
Con ayuda de mapas el disertante va explicando la ubicación geográfica del continente antártico, indicando la proximidad con diversos lugares y las Islas Malvinas.
Indica que en la península descripta existen por lo menos 34 estaciones sin que el comprenda exactamente cual es el término aplicable a una "estación". Sin embargo, según escritos de Naciones Unidas, una estación es donde se realizan tareas de investigación; él se pregunta que tipo de investigaciones se realizarán allí. De todos modos las estaciones detectadas tienen las siguientes nacionalidades; 6 estaciones de Argentina, 3 estaciones de Chile, 1 estación de EE.UU. y 6 estaciones de Inglaterra Hace un comentario adicional de que probablemente EE.UU. en vez de una, tenga dos.
Muestra la proximidad de las Islas Malvinas y hace hincapié en la importancia estratégica del Pasaje de Drake; indica que /para/ cualquier intento de desarrollo en la Antártida, es fundamental contar con bases cercanas. Obviamente los dos países que van a tener esa posibilidad son Argentina y Chile por la proximidad de su masa continental, pero fuera de esa alternativa, la única que queda es el dominio de las Islas Malvinas, ya que desde allí se puede ejercer un control efectivo sobre el Pasaje Drake.
Explica que el continente antártico se encuentra cubierto por hielo y desde varias disciplinas se hace indispensable continuar los estudios

de la época glacial. En el mundo existe un solo lugar en donde se puede realizar ese tipo de estudios y esto es en la Antártida. La realidad es que hay un conjunto de naciones que le han prestado un interés creciente a la Antártida en los últimos 30 a 40 años. Ya no es el continente aislado, perdido, ni remoto de otras épocas en la historia de la humanidad; existen hoy en día una cantidad de cuestiones de tipo científico que pueden ser desarrolladas solamente en la Antártida y por otro lado, la Antártida se sabe es un reservorio de substancias y bienes económicos y que, en la mayoría de los casos, falta aún la tecnología que permita su extracción a precio razonables.

Dentro de estos intereses económicos también está la explotación del krill por sus posibilidades económicas como alimento sustitutivo en el futuro. Además existe una riqueza ictícola muy importante que a veces se ha predicho que es siete veces superior a la del Mar del Norte.

Si bien los intereses económicos son comunes a todas las naciones del mundo, hay que tener en cuenta que /en/ el conflicto de las Malvinas, Argentina ha hecho jugar un rol importante a todas las cuestiones relacionadas con la soberanía.

Es cierto que el tema soberanía puede llegar a tener una cierta trascendencia el día de mañana, en cuanto deba hacerse la negociación final con respecto al casquete polar antártico. Por otro lado es claro que la Argentina tenía interés específico ya no sobre las Islas Malvinas, sino también sobre las Georgias del Sur, dado que de esta manera ampliaba sustancialmente su pretensión y supuesta soberanía sobre una mayor superficie del casquete polar antártico.

Vuelve a hacer hincapié sobre las posibilidades económicas no solamente de la Antártida, sino de los mares que la rodean. Explica a la concurrencia que la harina de pescado se ha convertido hoy en un elemento cuasi estratégico.

Hay una gran existencia de minerales en la Antártida, no se sabe muy bien todavía cuantos, ni cuales, pero su existencia está confirmada. Hay rumores con respecto a Uranio. Por supuesto todo el mundo se da cuenta

que con la tecnología actual, quizás todas estas reservas queden simplemente como una posibilidad para el futuro.

Concretamente, la clave para el acceso a todas esas riquezas y bienes económicos, es la tecnología. Tecnología no solamente para la explotación, sino para el mantenimiento en la zona de barcos, para la creación de puertos y para la instalación de aeropuertos.

La Antártida puede estar llena de petróleo y gas de petróleo. Sin embargo la presencia de petróleo nos enfrenta con el mismo problema que señalamos antes, ya que su extracción no será fácil.

Finalmente es evidente que sí existe o debe existir gran cantidad de petróleo, inclusive con ciertas zonas de mayor ventaja como es la plataforma submarina que rodea a la península antártica.

Son varias las naciones que no ponen en duda la existencia de petróleo, inclusive ha habido estimaciones realizadas por la empresa oficial argentina YPF (Yacimientos Petrolíferos Fiscales); lo que definitivamente no se pone en duda es la existencia de bastante petróleo en la plataforma continental argentina o sea cercano a las costas argentinas.

Por supuesto este país no ha podido desarrollar todavía su tecnología, como aquella que se ha podido desarrollar en el Mar del Norte. Estas estimaciones de YPF indican que en la plataforma continental argentina puede haber reservas de petróleo nueve veces superiores a aquellas del Mar del Norte. Por supuesto, esta estimación argentina no ha sido confirmada internacionalmente, pero es un dato a tener en cuenta.

Sin embargo, todas estas reservas serán explotadas el día que la tecnología avance, pero no serán explotadas si no se clarifica la propiedad del área.

Esto quiere decir que nadie invertirá en la zona, sin que se clarifique la soberanía del territorio o sea qué pedazo del mismo le corresponde a quien.

Mencionó además que la Argentina todavía no ha mostrado la capacidad necesaria para poder hacer explotaciones en el mar, aún sobre plataformas continentales, por lo tanto mucho menos en situaciones de mar abierto y a gran profundidad. Sin embargo pide que el auditorio lo tenga presente

como estrategia del futuro; que este tipo de tecnología puede ser finalmente aprendida y por lo tanto desea que el auditorio recuerde a la Argentina como potencialmente al mismo nivel en cuanto riqueza petrolera que México y Venezuela en el continente sudamericano.
A continuación el disertante pasa a referirse a lo que él llama la era del espacio, la era de los satélites.
Explica que existen una mayoría de satélites que tienen órbitas ecuatoriales, pero sin embargo hay una serie de satélites que tienen órbitas polares y que por lo tanto todos ellos pasan sobre la Antártida.
Este conjunto de satélites que define como muy interesante, necesitan vigilancia y comunicación desde tierra. Si bien en este momento él cree que no existen estas facilidades de vigilancia y comunicación con satélites desde la Antártida, piensa que es algo que inexorablemente va a ocurrir, ya sea que le venga bien o mal a naciones como Argentina y Chile.
El disertante vaticina que si bien esas infraestructuras para vigilancia y comunicación de satélites de órbita polar existen en el hemisferio norte, no existe una infraestructura de este tipo en el hemisferio sur. Vaticina que esa infraestructura va a surgir próximamente por parte de aquellas naciones que tienen los satélites en órbita. En este caso puede ser que la Argentina y Chile decidan defender la supuesta soberanía sobre sus territorios reclamados o puedan entrar en algún tipo de alianza con las naciones que necesiten colocar su infraestructura en los territorios reclamados por ellos. De todos modos, estén o no estén de acuerdo las naciones linderas con el casquete polar antártico, es indispensable, desde el punto de vista tecnológico-militar, el acceder el día de mañana a la creación de esas infraestructuras para localización, vigilancia y comunicación de satélites orbitales polares.
Como resumen, expresó que ante los sistemas de bombas orbitales, sobre todo aquellas de órbita polar, resulta indispensable para las superpotencias, contar con territorio de forma tal de poder actuar sobre estos sistemas.

A continuación el disertante se pregunta cual es la estrategia naval argentina o cual es la estrategia con respecto al uso de los mares (reconoce que en esto tiene que existir una influencia con_creta de la Marina de Guerra Argentina). Desde el punto de vista del disertan te existen cuatro posibilidades para contestar a esta pregunta.
La posibilidad número: el canal de Panamá se encuentra hoy en día practicamente saturado; demás de eso existen dos elementos que hacen pensar sobre su posible inexistencia en un momento dado; el primero de ellos es que se menciona que existen serios problemas de mantenimiento desde que el canal ha sido dado a manos panameñas. El segundo elemento es cualquier tipo de conflicto local o actividad terrorista que podría dejar fuera de condiciones en solamente 24 horas el canal de Panamá. De forma tal que existe una gran masa de barcos que estarían impedidos de pasar del Atlántico al Pacífico y viceversa.
Si miramos al cono sur de sudamérica, encontramos que existen solamen te tres formas de pasar del Atlántico al Pacífico, esto es a través del Estrecho de Magallanes, a través del Canal de Beagle o a través del Pasaje de Drake lindero con el Cabo de Hornos. Por otra parte, el disertante hace hincapié que lo que antes era un lejano pasaje entre océanos y no necesariamente importante, se convierte hoy en día en al go de absoluta prioridad. Estas mismas consideraciones en cuanto a la nueva e inminente prioridad del Pasaje de Drake tiene que estar dentro de la estrategia naval argentina así como de la chilena. Esta es una presunción que hace el disertante.
Posibilidad número dos: el disertante recuerda que los submarinos de Alemania durante la Segunda Guerra Mundial trataron de tomar las islas del Atlántico Sur como base.
Explica que hoy en día con el gran desarrollo de los submarinos, en el sentido que pueden navegar mayor distancia y que su sistema de misiles, se buscan lugares lejanos y seguros desde donde puedan lanzar sus misiles, en lo posible sin ser detectados.
Por lo tanto, las aguas del Atlántico Sur, pero especialmente los mares que rodean al casquete polar antártico, se convierten en el punto

ideal que reune los requisitos indicados previamente.
Posibilidad número tres: La Antártida es un lugar ideal, quizás el único, para colocar las grandes antenas necesarias para poder comunicarse con submarinos, sumergidos. Se sabe de bases americanas que han construido antenas de trece millas de largo para este propósito. La Antártida se constituye entonces en uno de los lugares ideales para la construcción de este tipo de antenas, ya que quedan pocos lugares en el mundo donde sea práctico y seguro colocar antenas de tal longitud.
También se refirió a que la Antártida, según recientes relevamientos batimétricos, está rodeada de por lo menos cuatro planicies abisales. En última instancia estas son planicies detectadas o valles sumergidos de 3.000 a 6.000 metros de profundidad, donde las condiciones del agua son ideales en el sentido que mantienen una temperatura estable, un grado de salinidad estable y poco movimiento de agua. Hay relativamente pocas planicies de este tipo en el mundo y sobre todo de la importancia de las descubiertas en la Antártida. De tal forma esas planicies se convierten en un lugar ideal para la colocación de hidrófonos, dè gran magnitud que podrían detectar submarinos en las grandes superficies de los diferentes mares u océanos que convergen en el casquete polar antártico.
Se indica que Estados Unidos ya ha comenzado con este programa y que su etapa inicial es un proyecto denominado SOSUS, el cual reside en la aplicación de hidrófonos colocados en el fondo del mar.
Las planicies abisales indicadas anteriormente, aparentemente son muy raras de encontrar en el casquete polar ártico, mientras que en el antártico se dan por lo menos cuatro, que inclusive han sido detectadas en mapas recientes de la National Geographic, de las cuales una de ellas se orienta hacia el Pacífico, otra hacia el Indico, otra hacia el Atlántico y otra sobre el Mar de Wedel también mirando hacia el Atlántico.
La alocución del señor POSSONY termina resaltando nuevamente la impor

tancia estratégica global e inmediata que tiene el continente antártico, por las razones expuestas en su conferencia.
Termina preguntándose si los estrategas de la Argentina han realmente tenido en cuenta o no, los cuatro puntos específicos que ha mencionado dentro del contexto de toda su alocución.
Dice que él no tiene la respuesta, no sabe si lo han considerado, pero que de todos modos no solamente los argentinos sino muchas otras naciones tendrán que tener en cuenta este inmediato problema estratégico, que si bien en primera instancia está constituido por el Pasaje de Drake, se amplía a todos los demás conceptos expresados.

"LECCIONES DEL CONFLICTO DEL ATLANTICO SUR". LONDRES 2/3-9-82.

LECCIONES SOBRE LA CAMPAÑA DE LAS MALVINAS

Conferencia a cargo del Vice Mariscal del Aire (R) F.W.B. MENAUL.

Aclara que los puntos de vista que va a expresar de aquí en más, corresponden exclusivamente a la parte inglesa. A su criterio la victoria sobre las islas Malvinas fue completa y total para poder desalojar a un invasor. Por otro lado fue un ejemplo para todo el mundo. Esta victoria se logró con un total apoyo político interno de todas las fuerzas de opinión de Gran Bretaña.

No hubo en ningún momento intervención por parte de terceras naciones. No existen dudas con respecto a esta victoria que significó movilizar más de 8.000 millas una Fuerza de Tarea, si bien se realizó no contra una potencia mundial sino contra un país que no había tenido guerras en el presente siglo. Por otro lado las fuerzas inglesas se opusieron a unas fuerzas armadas inefectivas, mal preparadas, mal entrenadas y sin espíritu de lucha.

Los únicos daños infligidos por las fuerzas armadas argentinas y su aviación se debieron a que Inglaterra estaba mal equipada para defenderse.

En última instancia fue solamente una guerra de mar y aire.

La derrota argentina fue incondicional y afortunadamente se logró evitar la participación de Naciones Unidas, las cuales en este caso no pudieron forzar la intervención internacional.

Vuelve a reiterar que no se combatió a una potencia mundial, ni siquiera a una potencia de segundo orden mundial, que la moral y entrenamiento de las tropas era baja y que tiene que mencionar solamente una excepción la cual es la Fuerza Aérea Argentina y la Aviación Naval Argentina.

A pesar de estas características, el conflicto merece ser analizado y a Inglaterra le corresponde analizar en detalle sus acciones con miras a corregir aquellos errores que se puedan haber detectado.

Ese análisis corresponde, sobre todo a la luz de que las fuerzas argentinas infligieron daños sobre las fuerzas inglesas mucho más allá de sus capacidades teóricas y prácticas.

Si bien reconoce la presencia del Ilustrius en la zona de las Malvinas a fin de disuadir cualquier nuevo intento por parte de la Argentina, al mismo tiempo hace hincapié en que la defensa de esas Islas tiene que ser acrecentada con armas modernas y efectivas como aquellas que demostraron su capacidad durante el conflicto.

Menciona que luego del hundimiento del General Belgrano, no se detectó ningún tipo de operación por parte de buques de la Marina de Guerra Argentina. Por otro lado Inglaterra sabía de la existencia de Exocets y aviones Super Etendard por parte de Argentina, "después de todo, nosotros también tenemos Exocets", y también habían previsto la posible participación por parte de Argentina de unos 140 a 150 aviones de guerra incluyendo 40 a 45 Pucará.

Las FF.AA. de Gran Bretaña preguntaron a los fabricantes franceses cual era la real disponibilidad de aviones Super Etendard y Exocets que en ese momento contaba la Argentina; la respuesta francesa fue que tenía 6 aviones Super Etendard y aproximadamente 6 exocets y que además había capacidad suficiente en técnicos argentinos como para completar las fases de armado de los mismos.

En materia de aviones, además de los Pucará indicados, se sabía que existían Mirage, Dagger, Camberra, Skyhawk, etc.

Asimismo indica que los 6 Super Etendard que se disponía eran parte de una partida de 14 que habían sido contratados originalmente, pero nuevamente insiste que no había más de media docena en territorio argentino operables.

Con la única excepción de los Super Etendard, todo el material aéreo de la Argentina era antiguo, alguno de más de veinte años, la mayoría o casi la totalidad sin capacidad para navegar con mal tiempo y la mayoría de ellos, salvo nuevamente los Super Etendard, sin capacidad para operar de noche.

Desde su punto de vista el ataque realizado con bombas de la 2da. Guerra Mundial y con ataques anticuados a baja altura, se lograron sin embargo el hundimiento de 6 barcos ingleses, 10 seriamente dañados y otros ligeramente dañados.

El equipo que poseía la Argentina en tierra, sobre todo en el área de Puerto Stanley, era bastante apropiado y moderno, pero sin embargo se lo operó deficientemente por falta de entrenamiento.
Cabe mencionar que el hecho de usar bombas con sistemas de activación defectuosos , provocaron que muchas no explotasen; solamente como ejem plo tengamos en cuenta que el Plymouth fue tocado por 4 bombas las cua les fueron desactivadas y por lo tanto esa Fragata fue totalmente salva da y está en operaciones hoy en día con total normalidad.
(Debemos aclarar que en charla de pasillo, el Miembro del Parlamento, Sir Patrick Wall indicó que de haber explotado todas las bombas que no lo hicieron durante el conflicto sobre navíos ingleses, de seis a ocho navíos ingleses más hubiesen sido hundidos).
Por otro lado el disertante comenta que inclusive la elección de las bom bas fue inapropiada por parte de las fuerzas armadas argentinas. El uso de bombas de 1.000 libras es totalmente inapropiado y se hubiesen pro- ducido muchas bajas entre el equipo inglés si las bombas hubiesen sido de 500 y de 250 libras. También hace el comentario con respecto al mal calibrado de las espoletas, lo cual de haber sido hecho más eficiente- mente, hubiese aumentado considerablemente los daños en la flota ingle- sa.
Hace una descripción de todos los misiles y armas antiaéreas existentes en la flota, pero hace especial hincapié que en la forma que habían si- do distribuidos no podían protegerse de ciertos ataques o ciertos hundi mientos como ocurrió en el caso del Sheffield.
Se pasa a describir lo que el disertante considera las cifras oficiales de aviones abatidos por armamento inglés, de la siguiente manera: Rapier, 13 bajas - Sea Wolf, 5 bajas - Sea cats, 6 bajas - Blow pipe, 8 bajas - Harriers, 37 bajas - Sea darts, 8 bajas; lo que constituye un total de 77 bajas, divididas en 37 bajas en combates aire-aire y 40 bajas en dis paros superficie-aire.
Pasa luego a hacer referencia de las virtudes de los Harrieres y de su magnífica operación bajo toda condición, aún en un teatro tan complejo como es el Atlántico Sur.

Indica que aparentemente se dijo en Inglaterra, que si la pista en Puerto Stanley hubiese tenido 6.000 pies en vez de 4.000, la invasión pudiese haber sido evitada. El punto de vista del disertante es que esto no es así, la invasión no hubiese sido evitada y por otro lado, si la pista hubiese contado con 6.000 pies en vez de 4.000, hubiese servido para alargar enormemente el radio de acción de la aviación argentina y especialmente de los Super Etendard. En las islas, Inglaterra, nunca pensó en dejar más que una pequeña fuerza de protección y que por lo tanto si hubiese existido una invasión argentina por sorpresa, como realmente sucedió, la invasión no hubiese podido ser evitada.

Por otro lado, de haber contado la Argentina con una pista de mayor longitud se hubiese convertido en una herramienta altamente peligrosa dado que eso daría una enorme capacidad de cobertura aérea a las fuerzas aéreas argentinas. Indica que si hubiese existido esa pista de 6.000 pies, la fuerza aérea hubiese estado en condiciones de interceptar la fuerza inglesa a 400 millas de distancia de las Malvinas.

A criterio del disertante las lecciones del conflicto austral son las siguientes:

1. Que si existe cualquier territorio bajo control a distancias relativamente largas, debe tenerse previsto defensas de forma tal de poder mantenerlo.
2. Inglaterra ha demostrado que tiene una Fuerza de Despliegue Rápido que puede auxiliar en cualquier momento a la de los Estados Unidos.
3. Que el uso de una fuerza en áreas ajenas a los objetivos principales, puede convertirse en una necesidad frecuente, teniendo en cuenta el interés y renovada prioridad estratégica que constituyen las aguas del Atlántico Sur.
4. La necesidad de Inglaterra de avanzar y mejorar en lo que se refiere a alarma antiaérea temprana. Atribuye uno de los grandes defectos, quizás el mayor, al no tener un sistema en profundidad de alarma antiaérea temprana. Las técnicas de avance y vuelo a baja altura demostraron las debilidades existentes en los sistemas de alarma antiaérea. Menciona que el Ilustrius, en viaje en estos momentos hacia las is-

las Malvinas, fue equipado con Sea Kings (con radares), para prever esa necesidad de alarma antiaérea temprana.

5. Hay cuestionamientos con respecto a la capacidad del Sea Dart para ser efectivo ante ataques de vuelos rasantes, de todos modos menciona que no ha habido pruebas suficientes como para abrir juicio fundamentado con respecto a la efectividad de los Sea Dart.
   Especula sugiriendo que después de todo los argentinos también tienen Sea Dart vendidos por los ingleses y que quizás conocían su poca capacidad para defender ataques de baja altura y que quizás ésta fue una de las razones por las cuales tomaron preferentemente este tipo de táctica de ataque.
6. Hace hincapié en lo indispensable que resulta de aquí en más el helicóptero; habla del gran rol polifuncional que cumplió el helicóptero y menciona incidentalmente que ya la Marina de Inglaterra ha dispuesto la compra de 60 Sea King más.
7. Con respecto a la batalla en tierra, son muy pocos los comentarios que pueden hacerse. Recuerda que fue solamente una batalla de tres semanas y a juicio del disertante son muy pocas las lecciones que se pueden tomar que sean aplicables al teatro de operaciones de la NATO.

A continuación se refiere a las pérdidas sufridas por parte de las fuerzas inglesas y hace nuevamente mención que las pérdidas fueron desproporcionadas en relación al tipo de material que se tuvo que enfrentar.
Primeramente hace hincapié en que ningún Harrier fue perdido en una batalla aire-aire. El oponente contaba con Mirage que en cierta forma son un enemigo importante para un Harrier, pero que por razones que él no conoce, los Mirage argentinos no pudieron provocar bajas en combate aire-aire con los Harrier.
Por lo que si está profundamente preocupado es que las bajas de Harrier producidas fueron todas en las mismas circunstancias o sea en vuelo de Harrier a baja altura atacando Goose Green o Puerto Stanley; los Harriers abatidos tenían por lo tanto todos el mismo diseño de ataque, vuelo a baja altura para bombardeo con bombas cluster o bombas de plástico y luego salida. Los Harriers abatidos lo fueron cuando realizaban este ti

po de maniobra.

Desea reconocer especialmente que la Fuerza Aérea Argentina operó en toda circunstancia al límite de su radio de acción, casi a 400 millas de sus bases de tierra y luego de tener que atravezar enormes superficies de mar.

Menciona que los GR3 y los GR5, a su criterio, deberían tener armamento más sofisticado y que este tipo de material es indispensable en el teatro de operaciones de la NATO.

El disertante a continuación expone su punto de vista con respecto al ataque sobre aeropuertos e indica claramente que no ve ninguna necesidad, en el día de mañana, de usar aviones tripulados para este tipo de ataque, ya que se ha comprobado su inefectividad.

A su criterio este tipo de ataques sobre aeropuertos debe ser dejado en manos de misiles balísticos o de los misiles de crucero, los cuales deberían tener de aquí en más a su cargo la destrucción de ese tipo de objetivos.

El disertante hace hincapié en dos cosas quele gustaría que sucediesen próximamente y esto se refiere al desarrollo de bombas y misiles para los equipos actualmente en uso, que no necesiten acercarse el avión a los blancos en todo momento. De forma tal que el principio general es lograr que las bombas transportadas y los misiles puedan ser disparados a una distancia prudencial del blanco y ellos mismos, en todos los casos, busquen su blanco.

No demuestra conformidad con respecto a las cluster bombs.

Hace hincapié en otro factor que no vió en el conflicto del Atlántico Sur y que cree es fundamental; esto se refiere a lo que hoy en día se llama defensa por supresión o sea tácticas de supresión adelantada de aviones y misiles del enemigo, especialmente lo que es la búsqueda en cualquier lugar de los misiles y radares así como de los aviones en tierra. Hace una referencia del buen uso que han hecho de estas tácticas de supresión los israelíes, dado que mencionó que por ejemplo en un ataque previo a la ciudad de Beirut, los israelíespudieron abatir prácti

camente la totalidad de los SAM 6 de Siria en tierra, así como más de 90 aviones en tierra.
El disertante hace hincapié en que los aviones enemigos en el conflicto del Atlántico Sur, son substancialmente diferentes a los aviones que uno va a encontrar en el teatro de operaciones de la NATO; recuerda a la concurrencia que aparte del poder aéreo actual de la Unión Soviética, se han agregado cuatro aviones nuevos altamente efectivos al rol o plantel existente en los países aliados de la Unión Soviética.
Hace hincapié en el buen desenvolvimiento de los Rapier y aspira a que todas las bases y pistas inglesas sean defendidas en forma masiva por este sistema de misiles.
Menciona que se debe revisar el concepto de las armas buscando la posibilidad de contar con bombas inteligentes, no solamente el sistema de armamento de los nuevos aviones bajo diseño, sino también aprovechar más inteligentemente las plataformas actualmente en uso o sea los aviones, de forma tal de equiparlos mejor.
Como ejemplo de este armamento a que el aspira, menciona el lanzamiento de un misil que una vez sobre el blanco pueda desprender una nube de sub-armas que a su vez sean inteligentes como para dirigirse cada una de ellas a diferentes objetivos como pueden ser por ejemplo, tanques.
Definitivamente establece que la época de las cluster bombs y las bombas de hierro está totalmente superada y hay que tender hacia esta nueva forma de armamentos.
A su criterio, en el armamento de la NATO existen deficiencias con respecto a misiles anti-radares de alta velocidad y es también una de las cosas a que aspira se cuenten dentro del armamento de la NATO, de forma tal de reforzar las tácticas de supresión defensiva.
Menciona que otra falencia fundamental que hubo en el conflicto de las Malvinas, es la carencia de contramedidas electrónicas efectivas, tanto en los aviones como en los barcos. Define que en el caso de Inglaterra hubo una deficiencia en ese aspecto, mientras que en el caso de Argentina no usó ningún tipo de contramedidas electrónicas.

Menciona que con respecto a este tópico, lo único que se utilizó con efectividad fueron los Chaff, pero que realmente le sorprende que no hubiera disponible elementos más sofisticados.
A su criterio la falta de los Bucaniers en la Fuerza determinó que no pudiese ser empleados misiles y sistemas de armamento que son, a su criterio, muy superiores en lo que se refiere a contramedidas electrónicas y misiles que busquen emisiones de radar.
Además desea desvirtuar el mito del avión monoplaza de propulsión a hélice que sirva para ataque de tanques, ese tipo de avión no existió, no existe ni debe existir el día de mañana. El posible desarrollo de un avión de este tipo es totalmente absurdo y no efectivo ante el tipo de defensa y poder aéreo y terrestre que tienen las fuerzas rusas en el teatro de la NATO. Este tipo de tarea debe ser encomendada al tipo de armamento indicado más arriba sobre la base de sub-armamentos y de bombas inteligentes y de sub-misiles. Ridiculiza nuevamente la idea de este tipo de aviones anti-tanque y sugiere a la concurrencia que se imagine lo que puede ser una invasión de 6.000 tanques rusos en el teatro de la NATO.
Es por ello que un avión de tipo PUCARA no tiene ninguna utilidad en el teatro de la NATO.
Cree altamente recomendable el equipamiento a toda la tropa de infantería con misiles baratos y no sofisticados, ya sea del tipo buscadores de calor o ya sea del tipo anti-tanque. Este armamento de tipo portátil o sea posible de llevar en mano, tiene que ser provisto en forma masiva a toda la tropa de infantería.
Hace hincapié en que el diseño de los nuevos aviones debe centrarse en reducir a un mímimo la reflexión del radar.
Desea hacer un comentario final y es que a pesar de la victoria total que se obtuvo en el teatro de operaciones de las Malvinas, a pesar de las enormes pérdidas infligidas al enemigo, a pesar de todo esto, los ingleses sufrieron bajas y que estas bajas, a su criterio, fueron de cierta magnitud por la mala distribución de las armas inglesas, más que por el hecho de que fuesen inapropiadas o anticuadas.

Finaliza comentando que la guerra en el Atlántico Sur fue la guerra del ayer, mientras que la guerra del Medio Oriente es la guerra del mañana, más apropiada a lo que se puede encontrar en el caso de un conflicto en la NATO.

OPERACIONES AEREAS: EL USO DEL PODER AEREO

Conferencia a cargo de John FOZARD, miembro de la firma comercial inglesa British Aerospace.

Hace mención que la operación del Atlántico Sur se denominó Operación FORTRESS y que a continuación va a dar detalles con respecto a las operaciones aéreas desarrolladas.

Los Harrier y los Sea Harrier son los únicos aviones que fueron empleados en la operación de referencia.

La información que se transmite es la oficial con que se cuenta al día de la fecha, la cual podrá variar levemente una vez que concluyan todas las investigaciones oficiales. La única pista disponible en tierra fue la existente en la isla de Ascención. Los aviones involucrados fueron inicialmente tres escuadrillas de Sea Harrier a la cual luego se le agregó una escuadrilla más, por lo que en total operaron solamente cuatro escuadrillas. La cuarta escuadrilla queda todavía retenida en el teatro de operaciones, estando embarcada su mayoría a bordo del Ilustrius.

Las bases originales de los Sea Harrier están distribuidas no solamente en Inglaterra sino hasta regiones remotas de la NATO como por ejemplo Noruega. Además en los últimos años se ha mentenido una escuadrilla de Sea Harrier operando en centro América, desde Belice . Las naves fueron embarcadas originalmente a bordo del Invincible, portaaviones que está en operaciones desde 1980 con la Royal Navy; normalmente la dotación de paz para el Invincible son 5 Sea Harrier y 10 helicópteros Sea King.

El segundo portaaviones utilizado es el Hermes que entró en operaciones para la Royal Navy en 1960 y que fue reequipado en 1981; este portaaviones es más amplio que el anterior y tiene mayor capacidad. La dotación o equipamiento en tiempo de paz es 5 Sea Harrier y 10 helicópteros Sea King. Por supuesto en esta operación el equipamiento a bordo fue reforzado y en el mes de abril por ejemplo, en el portaaviones Hermes, salieron en total 12 Sea Harrier y 15 helicópteros Sea King.

El otro aporte importante aéreo en esta operación es el de los aviones Nimrod, los cuales realizaron unas 130 salidas desde la isla Ascención, algunos equipados con misiles SIDEWINDER y con misiles HARPOON. La función de estos Nimrod fue importante si bien discreta, ya que se ocuparon de la cobertura en el desplazamiento de la Fuerza de Tareas desde la isla de Ascención hasta su aproximación final sobre las Malvinas; asimismo fueron encargados de tareas de patrullaje y de tareas de foto relevamiento. En total los Nimrod exigieron unas 1.500 operaciones de reabastecimiento aéreo.

Los otros aviones usados en los operativos aéreos fueron los Vulcan. Si bien algunos de estos aviones tienen capacidad de reabastecer en vuelo, este tipo de equipamiento no fue usado durante el conflicto del Atlántico Sur. Tal es así que cada salida de aviones Vulcan significó 15 salidas de aviones tanque.

Durante la conferencia se mostraron diversas diapositivas con respecto al equipo involucrado, armamentos, etc. En varios de ellos se ve el avance de la Fuerza en zonas de tormenta, mostrando barcos con su proa prácticamente sumergida bajo el agua.

Se hizo hincapié sobre la disponibilidad de estos aviones en todo momento, desde el punto de vista de la sencillez y excelencia de su mantenimiento; por ejemplo en un momento dado en el Hermes llegó a haber un total de 14 aviones, de los cuales se pudo mantener siempre 12 en condiciones de combate. Durante toda la campaña no hubo necesidad de cambiar ningún motor. Sin embargo, sí hubo muchísimas reparaciones y esencialmente se hizo hincapié en el enorme fuego graneado de armas menores, provenientes de la Argentina, que estos aviones tuvieron que soportar, asimismo también bastante fuego de artillería antiaérea, sobre todo en los alrededores de Puerto Stanley, no hubo bajas importantes, pero sí tuvo que hacerse enorme cantidad de reparaciones menores en fuselajes y algunas partes un poco más delicadas de los aviones.

Se muestran algunas diapositivas donde se ven reparaciones de "chapa y pintura" sobre extensas zonas del fuselaje, las cuales aparentaban haber sido reparadas y masilladas con algún tipo de enduido espe

cial y no pintadas, con lo cual los aviones quedaban listos para operar, pero con una especie de manchas irregulares en su fuselaje producto de las reparaciones.

Inclusive se observan agujeros producidos por balas de 20 mm. las que pudieron ser subsanadas en todos los casos durante la noche.

Haciendo nuevamente hincapié sobre la cantidad de impactos de armas menores que recibieron los aviones, se menciona el caso de un Sea Harrier que finalmente quedó sin combustible por agujeros en sus tanques y que definitivamente ese avión cayó.

Las tareas de mantenimiento fueron llevadas a cabo por una dotación total de 140 personas, reforzadas por 30 personas de mayor rango como Ingenieros y Técnicos especializados, trabajando todas ellas en dos turnos, realizándose la mayoría de las operaciones de mantenimiento durante la noche.

Vuelve a mencionar la gran cantidad de fuego de armas menores que se efectuó, especialmente desde Puerto Stanley; además hay que tener en cuenta que había misiles como el Roland, el Tiger Cat y Sam. Por otro lado es obvio que una gran cantidad de tropas de infanteria, quizás miles de ellos, es lógico que ante el paso de aviones, intenten su tiro aunque sea de armas menores, sobre los mismos, creando una nube de munición que provocó gran parte de las reparaciones necesarias; sin embargo, las mismas pudieron efectuarse en todos los casos en una sola noche, con una sola excepción de un avión que por este tipo de fuego estuvo seriamente comprometido en sus timones, lo que demandó una reparación de casi 48 horas.

El disertante explicó en detalle la cantidad de aviones y tipo de aviones que fueron utilizados en este conflicto, según el gráfico que se ve a continuación:

GRAFICO "A"

AVIONES UTILIZADOS POR INGLATERRA

SISTEMA	SEA HARRIER	HARRIER G.R.3.
EMBARCADOS EN INGLATERRA:		
- "HERMES"	12	--
- "INVENCIBLE"	8	--

///...

SISTEMA:	SEA HARRIER	HARRIER G.R.3.
ENVIADOS EN VUELO DESDE ASCENSION		
- A "ATLANTIC CONVEYOR" (52° 8')	8	6
- A "CONTENDER BIZANT" (52°)	--	4
ENVIADOS EN VUELO DIRECTO 3 UK/ASCENSION - ZONA AUSTRAL (CON REABASTECIMIENTO EN VUELO)	--	4
- SUMA PARCIAL:	28	14
- SUMA TOTAL:	42	

Con posterioridad se mostraron varias diapositivas esencialmente de los portaaviones, operaciones en los mismos, aterrizajes y despegues y una vista del Atlantic Conveyor en donde solamente a proa existía una plataforma para aterrizaje y despegue de los Harries. El Atlantic Conveyor no era un barco de depósito de Sea Harrier, sino que el destino del mismo era el almacenaje de los cuatro helicópteros Chinook de los cuales se hablará en el capítulo correspondiente a helicópteros.

En consecuencia el Atlantic Conveyor se usó como pista de recepción de los Sea Harrier y que algunos utilizaron volando desde la pista de Ascensión y como pista intermedia para operaciones de reaprovisionamiento.

El portaaviones Hermes fue la base de los Harrier GR3 que si bien pertenecían al Ejército, quedaron todos bajo dominio y dirección de la Royal Navy. Los pilotos del Ejército, si bien estaban entrenados en aterrizaje y decolaje en pistas cortas, no todos tenían experiencia para el aterrizaje y decolaje sobre barcos; por lo tanto en primera instancia no fueron destinados en las misiones ini-

ciales sobre las Malvinas, sino que se reservaron para misiones posteriores y especialmente cuando ya se contaba con la pequeña pista de reaprovisionamiento que se instaló en San Carlos.

En San Carlos, una vez producido el desembarco, se llegó a construir una pista de metal de 850 pies de largo, la cual sirvió exclusivamente para reaprovisionar los aviones; esta pista es muy importante, desde el punto de vista del disertante, ya que los aviones venían de la Flota, aterrizaban en San Carlos para ser reaprovisionados y podían operar desde allí con un mayor radio de acción, hasta tres misiones sucesivas antes de regresar definitivamente, vía reaprovisionamiento en San Carlos, nuevamente a su destino final en la Flota.

Menciona que en la etapa inicial del conflicto, dado que la Flota se encontraba bastante alejada en dirección NE. y E. de las Islas Malvinas, los aviones se encontraban en las mismas inferioridades de condiciones en que se encontraban los argentinos, en el sentido que llegaban sobre la zona de operaciones con enormes limitaciones de combustible.

Hace referencia el disertante que el desempeño de los pilotos argentinos de ambas fuerzas fue muy profesional, muy eficiente, y que fueron muy valientes.

La Fuerza completa de Harriers y Sea Harriers volaron en total 1650 salidas en la zona de exclusión durante el conflicto.

Las horas normales de vuelo por mes para este tipo de aviones es de aproximadamente 55 las que fueron en su mayoría dobladas (más de 110) durante las operaciones.

Los aviones realizaban como promedio 6 salidas por día y los pilotos realizaban de 3 a 4 salidas por día, algunas de las cuales llegaron a durar hasta 10 horas.

A continuación se indica en el gráfico b. los roles y misiones asignados a los Harriers y Sea Harriers que están en relación directa con su tipo de especialidad.

GRAFICO "B"

ROLES Y MISIONES

(1.650 salidas durante el conflicto)

SEA HARRIER:

INTERCEPTACION PAC - INTERCEPTOR LISTO EN CUBIERTA

RECONOCIMIENTO: NAVAL Y TERRESTRE

ATAQUE - BOMBARDEO

ATAQUE TERRESTRE

SUPRESION DE RADARES

G.R.3. (HARRIER):

RECONOCIMIENTO

ATAQUE

ATAQUE TERRESTRE

SUPRESION DE RADARES

A continuación se mostró un gráfico relacionado con las bajas ocasionadas sobre aviones argentinos:

GRAFICO "C"

BAJAS ESTIMADAS A AVIONES ARGENTINOS
(Según este disertante)

DERRIBADOS POR SEA HARRIER - HARRIER:		DERRIBADOS POR MISILES SA:		OTROS MEDIOS:	
- "MIRAGE"	19	SEA DART	8	CAÑON DE 4,5"	1
- "A4"	5	SEA WOLF	5	ARMAS MENORES	6
- "PUCARA"	2	SEA CAT	6	PARCIAL	7
- "CAMBERRA"	1	RAPIER	13		
- "C 130"	1	BLOWPIPE	8		
- HELICOPTEROS	3	PARCIAL	40		
PARCIAL	31				

T O T A L: 78

Observaciones:

Nótese que si comparamos el presente gráfico con los datos indicados por el disertante Vice Mariscal del Aire MENAUL en su conferencia Lecciones de la Campaña de las Falklands, existen algunas diferencias, a saber:

- El disertante anterior da un total de bajas de aviones argentinos de 77, mientras que el disertante actual da un total de bajas de 78 (el total de bajas es más o menos similar).

Sin embargo el primer disertante dió un total de bajas aire-aire, supuestamente atribuibles a los Harriers y Sea Harriers, de 37 aviones, mientras que el disertante actual da solamente 31 aviones e incluso helicópteros como un total de bajas de los Harriers y Sea Harriers.

- En lo que se refiere a misiles superficie-aire ambos disertantes coinciden totalmente, no solamente en la cantidad sino también en la identificación de bajas atribuibles a cada tipo de misil.

A continuación el disertante se refirió a las bajas de aviones ingleses durante el conflicto.

GRAFICO "D"

(BAJAS AVIONES BRITANICOS)

CIRCUNSTANCIA:	SEA HARRIER:	G.R.3. HARRIER:
COMBATE AIRE - AIRE	2	3
PERDIDAS POR ACCIDENTES	4	---
- SUMAS PARCIALES:	6	3

1.650 SALIDAS OPERATIVAS

RELACION PERDIDA/ SALIDA: 0,55%

A continuación el disertante resumió lo que a su criterio son las conclusiones de su exposición, las cuales se presentan en el gráfico E.

GRAFICO "E"

CONCLUSIONES:

- FLEXIBILIDAD OPERATIVA

  Lanzamiento y recuperación seguros
  - Sin caer al viento
  - En malas condiciones meteorológicas
  - En alta mar.

- REFUERZO CON BUQUES PORTA-CONTENEDORES
- BASES ADELANTADAS
  - En tierra y en buques plataforma
- ALTA AGILIDAD EN EL COMBATE
+ SIMPLICIDAD DE INGENIERIA

El expositor, ante una pregunta, hizo especial hincapié en la capacidad demostrada y probada por los Harriers en lo que se refiere a despegue y aterrizaje sin necesidad que el navío plataforma o portaaviones se ponga al viento. Indicó que esto significó una enorme ventaja dado que el navío podía continuar en navegación hacia su objetivo durante las operaciones de despegue y aterrizaje.

ANEXO A LA CONFERENCIA "OPERACIONES AEREAS: EL USO DEL PODER AEREO".

Panel de discusión.

Con posterioridad a la conferencia precitada se realizó un panel de discusión con intervención de los disertantes, así como personal militar retirado de los Estados Unidos con amplia experiencia en algunos Teatros de Operaciones, como por ejemplo Vietnam.
Las preguntas habían sido obtenidas por el señor COPLEY de parte de los asistentes.
Pregunta: Cuál fué en última instancia el índice de destrucción de los misiles lanzados por Gran Bretaña ?
Respuesta: No tenemos una versión exacta, pero se podría indicar que las tropas inglesas dispararon 27 misiles de los cuales por lo menos 24 tuvieron éxito.
Pregunta: Porqué hubo relativamente pocas pérdidas de aviones ingleses? A qué factores las atribuyen?
Respuesta: En líneas generales se indicó que las pocas bajas de los aviones ingleses puede ser atribuída a lo siguiente:

1. La Fuerza Aérea Argentina trabajaba al máximo de su capacidad desde el punto de vista del combustible.
2. El hecho de entrar en la zona de operaciones después de haber navegado muchísimas horas sobre el mar produce un tipo de fatiga reconocida por todos los pilotos internacionalmente.

No hubo más explicación que esta y nuevamente se elogió el accionar de los pilotos argentinos, tanto de la Fuerza Aérea como de la Aviación Naval.
Pregunta: El hecho de que los aviones argentinos tenían que salir del Continente y no de las islas, era importante?
Respuesta: Sí, tremendamente importante. Si bien no creemos que hubiese alterado sustancialmente la cantidad de bajas inglesas, hay que reconocer que si los argentinos hubiesen operado desde la isla, hubiesen ampliado su radio de acción y entonces sí, probablemente no hubiesen elu-

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dido los combates aéreos.
No solamente el hecho de no haber podido usar la isla como plataforma, sino que además aparentemente tampoco lo hicieron desde barcos de su Armada.
Pregunta: Fué efectivo el uso de los Vulcan para ataques sobre la pista?
Respuesta: Fué realmente muy inefectivo. En general todos los bombardeos intentados con aviones sobre pistas son realmente inefectivos.
Ya durante esta conferencia se ha explicado cuales son las tendencias actuales sobre bombardeos sobre pistas.
De todos modos los Vulcan fueron usados esencialmente como demostración de una decisión política. Con esto se quería demostrar que en cualquier momento si fuese necesario, se podía bombardear el territorio continental.
Se insiste en que quien pensó que podía destruir la pista con este tipo de bombardeo, estaba totalmente equivocado.
Aún en el caso que se confirmase que se usaron casi 200 bombas sobre este objetivo, la realidad demuestra que es totalmente equivocada la táctica utilizada. Para poder llegar a infligir daños graves sobre la pista quizás hubiese sido necesario como 50 aviones Vulcan y no la cantidad utilizada.
Pregunta: Cuál fué el papel de los Nimrod, ya que aparentemente no fueron dedicados para Alarma Aérea Temprana?
Respuesta: Los Nimrod aparentemente hicieron un excelente papel,pero su tarea no era específicamente esa. Hicieron un excelente trabajo en lo que se refiere a reconocimiento de largo alcance. Por otro lado hay que tener en cuenta que los Nimrod no tenían capacidad para reabastecimiento en el aire. Hubo que hacer las adaptaciones necesarias y es muy importante destacar que todo el diseño, construcción, implementación y prueba del sistema de reabastecimiento en aire de los Nimrod, se hizo en 14 días desde que se tomó ladecisión. Esto habla muy bien del factor moral y también la ayuda recibida por parte de la in-

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dustria privada inglesa, que realmente trabajó en este caso como si fuera una crisis de suma gravedad. Para tener una idea de la complejidad de la tarea se indica que una sola de las piezas que hubo que diseñar para lograr el reabastecimiento aéreo, llevó más de 600 planos. Jamás se hubiese logrado este tipo de perfomance conjunta entre la gente de la industria privada y los militares de Inglaterra en un tiempo de paz.

Pregunta: Cuál fué el papel de la fuerza naval argentina?

Respuesta: Después del hundimiento del "General Belgrano", por razones que me son desconocidas, quizás la decisión que fué tomada por los almirantes argentinos era que el mejor lugar la flota argentina era el puerto. No se notó mayor actividad de la Marina de Guerra. Quizás de aquí en más se determine una nueva relación de influencia interfuerzas en la Argentina, ya que el Ejército perdió la guerra y la Marina mantiene intacta su flota. (aquí hay varias risas y comentarios entre el total de la audiencia).

Pregunta: Y volviendo a los Nimrod?

Respuesta: Los Nimrod realmente cumplieron un muy buen papel. Hay que tener en cuenta que las salidas fueron difíciles y todas de largo alcance. Hay un vuelo de un Nimrod que demoró unas 28 horas. Lo que hay que destacar es que de aquí en más todos los aviones tienen que tener capacidad para reabastecimiento aéreo.

Comentario de pasillo: El General Belgrano no fué hundido por un torpedo de tipo Tiger Fish sino por un torpedo más antiguo, de tecnología menos avanzada. Nota de la JEIN: luego se supo que era un torpedo de corrida recta MK 8.

Pregunta: Cuál fué el rol de la marina mercante inglesa?

Respuesta: El rol de la marina mercante inglesa fué absolutamente decisivo en este conflicto. Si bien no existía un planeamiento previo para trabajar en este Teatro de Operaciones específico, en Inglaterra existían no solamente los planes militares sino muy especialmente la capacidad legal para poder realizar las apropiaciones, incautaciones

y alquileres necesarios para poder movilizar una flota muy importante.

Pregunta: Qué papel jugó la Fuerza Aérea argentina en función de sus limitaciones?

Respuesta: En función de sus limitaciones jugó un excelente papel y realmente se notó que tenía una excelente vocación, si bien en algunos casos con poca preparación. Una de las lecciones que tenemos que tener en cuenta de este conflicto es que dado la enorme variedad de armas que existen hoy en día a través del mercado internacional de las mismas, se pueden encontrar las mismas en uso prácticamente en cualquier nación. Por lo tanto hay que estar atentos a la posibilidad de que la proliferación de armas que existe hoy en día en el mundo occidental sea algo que las super-potencias tengan que tener en cuenta en teatros de acciones específicas.

Pregunta: Entonces se entiende que el grado de apoyo de la industria inglesa fué excelente?

Respuesta: Efectivamente, el grado de apoyo y rapidez demostrado durante el conflicto puede clasificarse de excelente. Si bien anteriormente hablamos de modificaciones que tuvieron que ser llevadas a cabo sobre los Nimrod, hay que indicar que inclusive tuvieron que hacerse modificaciones sobre los Vulcan y sobre los Harrier. Se estima que el total de modificaciones solicitadas en un período muy corto de tiempo, no más de tres meses, a la industria inglesa fué de aproximadamente 4.000. Se vuelve a mencionar el caso del sistema de reaprovisionamiento en aire de los Nimrod que se efectuó en 14 días y que en tiempos normales hubiese llevado 3 años hasta cumplir con las pruebas finales.

Esto habla también de que existe una masa de gente joven, técnica de la industria privada que si bien no participó en otros conflictos armados de Gran Bretaña, se encuentra y lo ha probado totalmente capacitada para responder en una crisis de este tipo.

Pregunta: Si la industria militar argentina hubiese tenido capacidad

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de reacción en este conflicto, las cosas hubiesen variado sustancailmente?

Respuesta: No tenemos información como para poder contestar a esa pregunta ya que hay a la distancia muchas cosas que no se entienden. Por ejemplo se sabe que la Fuerza Aérea Argentina tiene intereses concretos en la industria militar, sin embargo no se comprende como no tenía capacidad para construir localmente tanques suplementarios descartables de combustible, los que resultaron ser críticos para esta operación.

Otro panelista agrega: Además hay que tener en cuenta que especialmente la Fuerza Aérea Argentina sufrió restricciones presupuestarias durante los últimos años anteriores al conflicto que estamos comentando.

Pregunta: Entonces hay que descartar el uso de los Nimrod para alarma antiaérea temprana?

Respuesta: La versión Nimrod para alarma antiaérea temprana no está operativa todavía. Lo estará en el futuro. Se sabía que ese no era el papel que iban a cumplir los Nimrod. Cumplieron otros papeles con excelencia.

Pregunta: Se utilizó la aviación inglesa para coordinar las comunicaciones?

Respuesta: Inglaterra no tiene por el momento la capacidad que puedan tener otras naciones en este sentido como Estados Unidos y durante el conflicto las comunicaciones fueron coordinadas esencialmente desde los buques.

Pregunta: La situación hubiese cambiado sustancialmente si la Marina Argentina hubiese operado más de cerca con su portaaviones?

Respuesta: Vuelvo a repetir que la decisión de la flota argentina debe haber sido extremadamente agónica para sus almirantes. De hecho prácticamente la flota no participó de esta operación. Por otro lado hay que tener en cuenta que el factor fundamental quizá fué la presencia de submarinos atómicos ingleses que demostraron con los hechos

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su capacidad para implementar un bloqueo naval.

Otro panelista agrega sobre el mismo tema que inclusive hasta el impacto psicológico del uso de los submarinos atómicos fué importante.

Pregunta: La invasión Argentina sobre las Malvinas fué realmente una sorpresa?

Respuesta: Sí, fué algo totalmente imprevisto. Quizás con el tiempo encontraremos señales que ambos bandos habían transmitido pero que ninguno de los dos supo interpretar. Yo recuerdo por ejemplo que quizás una de las causas del derrocamiento de VIOLA por parte de GALTIERI pudo haber sido de que VIOLA no apoyaba o no quería una invasión Argentina sobre las Malvinas y que por eso fué derrocado. Esto sólo se sabrá con el tiempo.

Se produce el siguiente comentario: Aparentemente una de las lecciones a tomar en cuenta deriva del hundimiento del "Sheffield". Por razones que deberán investigarse el buque en ese momento estaba ocupado en comunicaciones satelitarias y por esta razón su sistema principal de radar estaba momentaneamente desconectado, por lo tanto el ataque aéreo sobre el Sheffield fué una total sorpresa y no fué advertido por ningún sistema de Alarma Aérea.

Se produce otro comentario: Aparentemente los blancos para la aviación argentina no siempre estaban claramente delimitados y asimismo el hecho de que estuviesen en silencio de radio hasta llegar justo sobre el blanco indicaba una falencia en lo que se refiere a comunicaciones o información con sus bases.

Pregunta: Cuál fué el rol de las defensas anti-aéreas argentinas?

Respuesta: El rol fué bastante malo en función del equipamiento que tenían; por un lado se ha mencionado que tenían los sistemas Roland de defensa anti-aérea, sin embargo no hay que olvidar que ese no deja de ser un viejo diseño franco-alemán (aquí se produce un pequeño altercado y diferentes opiniones ya que existía entre los concurrentes un representante de la empresa Roland)

De todos modos está claro que no existieron más de dos unidades Ro -

land en tierra y que probablemente una no llegó a funcionar nunca. Ambas adolecían de falta de repuestos y esencialmente el problema es falta de adiestramiento por parte de los argentinos. Yo me pregunto cuantos Roland habrán sido disparados durante el entremamiento de la misma dotación que los operaba en ese momento en tierra.

Alguien del público indica: No puedo llegar a comprender como habiendo utilizado los argentinos armas tan sofisticadas como los Exocet, no pudieron utilizar armas menos sofisticadas como los Roland.

Alguien del panel contesta: yo no sé que le ve Ud.de sofisticado al Exocet, en última instancia todo se produce bastante automáticamente, lo único notable donde todavía se sospecha una posible intervención francesa, es que los argentinos hayan podido armarlos y ponerlos a punto sin la asistencia de los proveedores.

Se produce el siguiente comentario: Lo que es evidente es que existe una diferencia sustancial de entrenamiento y de efectividad de por un lado la Fuerza Aérea Argentina y la Aviación Naval y por el otro lado la Flota argentina y el Ejército argentino.

Aquí termina el panel de discusión.

A nivel de pasillos se escuchan los siguientes datos: Que el total de helicópteros usados por la Fuerza de Tareas fué de aproximadamente 100.- Que el total de aviones utilizados estaría alrededor de los 60.- (esto significa unos 20 más de los declarados en una de las exposiciones del presente informe).

Que el Atlantic Conveyor transportaba los únicos 4 helicópteros Chinook y que al ser hundido se perdieron 3 de esos 4.

DEFENSA AEREA: EL USO DE MISILES

(MAYOR GENERAL PERKINS)

La Conferencia DEFENSA AEREA: EL USO DE MISILES, no pudo ser grabada por haber sido interferido el grabador que se utilizaba, con algún tipo de señal electrónica.

Se entiende que esto fue algún accionar involutario de alguno de los presentes que inadvertidamente operó algún sistema de este tipo.

Para resumir esta conferencia diremos que fue netamente comercial a cargo del Mayor General Ken PERKINS y del General Sir Frank KING.

La conferencia dedicó todo su tiempo a la descripción de los misiles en uso por parte de Gran Bretaña, con bastantes dispositivas, pero no del Teatro de Operaciones, sino de diapositivas de archivo.

En líneas generales se habló no solamente de los misiles, sino también se hizo mucho hincapié en la parte helicópteros, en el sentido que en el futuro todos los helicópteros, aún aquellos asignados a tareas de rescate o tareas de transporte, deberían ser equipados con misiles de bajo costo.

Esto se saca como lección ya que en el conflicto de las Malvinas fueron muchos los pilotos que indicaron que si hubiesen tenido algún tipo de misil a bordo podían haber intentado un tiro exitoso contra aviones enemigos , en el lugar donde ellos estaban operando.

Asimismo se indicó que con respecto al Teatro de Operaciones de la NATO, es notable hoy en día la falta de helicópteros que puedan a su vez atacar o participar en combates aéreos con helicópteros armados y blindados.

Se menciona que todavía es necesario avanzar en el campo de los misiles para desarrollar algo específico que sirva como arma helicóptero contra helicóptero.

Durante la conferencia el disertante insistió sobremanera con respecto a las posibilidades de los misiles y sus afirmaciones de que con ellos los cañones pierden actualidad, provocaron un altercado con los delegados participantes que representaban a la industria de

los cañones.

Al hacerse cargo de la conferencia el segundo disertante General Frank KING los comentarios que se pueden rescatar son los siguientes:

Hace un comentario en el sentido de que en este conflicto ambos bandos utilizaron abundante cantidad de misiles y de diferentes tipos.

En el caso de los ingleses ya durante la conferencia se ha hablado de los misiles utilizados, pero en el caso de los argentinos da cuenta de los siguientes misiles en poder de este bando: Sea Dart- Sea Cat- Tiger Cat - Blowpipe - Roland y por supuesto los Exocet.

Para dispersar en cierta forma los nubarrones que se habían creado entre misiles y cañones el desea agregar que efectivamente en una ofensiva superficie a superficie, a su entender, los cañones cumplen un rol magnífico.

Ambas fuerzas probaron la enorme utilidad de los cohetes superficie - aire que se pueden portar manualmente. Concretamente los Blowpipe fueron un arma particularmente peligrosa para ambas partes en el conflicto. Esta arma es particularmente interesante y digamos que recibió su confirmación final durante este conflicto. Puede llevar una cabeza activa de un kilo y medio y tiene un alcance de tres y medio a cuatro kms. El hecho que sea un misil que no busque calor es particularmente apreciado y su sistema de disparo y operación en general es fácilmente accesible a tropas con muy poco entrenamiento en el mismo.

Además menciona que desde el punto de vista de un soldado de infantería el uso del Blowpipe es un motivo psicológico positivo, ya que se siente confiado de que va a ser mucho más efectivo que cualquier otro disparo con armas cortas. Desde el punto de vista de los pilotos atacantes sentirán la presión psicológica de saber que el campo de acción donde van a tener que efectuar sus misiones, va a estar poblado de estos pequeños misiles con alta capacidad de fuego y alta probabilidad de dar en el blanco.

Otra de las ventajas de que el Blowpipe no sea un buscador de calor es que se puede intentar la defensa de puntos importantes en tierra cuando los aviones comienzan su ataque o sea cuando entran a la zona de ataque y no cuando salen de ella quizás ya habiendo cumplido con su objetivo de bombardeo, ya que insiste en que el Blowpipe puede ser utilizado con bastante versatilidad mucho más que aquellos cohetes similares que son sólo buscadores de calor. El Blowpipe se constituye en un arma relativamente barata, que puede ser eficazmente utilizada para armar defensas antiáereas de alta flexibilidad.

Incluso en el caso de aviones atacantes que puedan superar las defensas de una formación y luego dirigirse a blancos específicos , estos, aún siendo barcos mercantes, pueden ser efectivamente defendidos.

El uso intensivo del Blowpipe puede llevar próximamente al diseño de pequeños containers listos para ser utilizados en cualquier tipo de situación, incluso barcos mercantes. Estos containers podrían tener de 6 a 8 Blowpipe y ser utilizados en forma rutinaria.

Cuenta una pequeña anécdota del efecto psicológico positivo que inclusive se ha comprobado con el Blowpipe. Aparentemente le refirió un oficial inglés que estuvo en la ocupación de Darwin y Goose Green, que si bien tuvieron la enorme satisfacción de poder conquistar esas posiciones ocasionando 250 muertos a la Argentina, 130 heridos y 14.000 prisioneros con solamente 17 bajas del lado inglés, la mayor satisfacción en esos días fue poder eliminar un avión a hélice del enemigo con un solo tipo de Blowpipe.

Otra de las grandes importancias del sistema de Blowpipe es que no solamente es útil para interceptar aviones, sino que lo más importante es donde se interceptan y cuando se interceptan o sea que el sistema da total flexibilidad en cuanto a lugar y tiempo. Dado que un operador de misil de este tipo en una superficie plana o sobre la superficie del mar tiene solamente 15 segundos aproximadamente para poder reaccionar y apuntar su arma sobre por ejemplo aviones

que avanzan a baja altura, quizás el sistema debería ser complementado por algún tipo de alarma muy sencilla, de bajo costo que amplíe esos pocos segundos de tiempo de reacción para el operador de forma tal que el sistema le diga por lo menos en que dirección viene el ataque.

Es de resaltar que una de las razones que existe y existirá con respecto al auge de la industria del misil, es su relación con los aviones.

Durante la segunda guerra mundial Inglaterra construyó 20.000 SPITFIRE (además de otros aviones); lógicamente en la actualidad no está en condiciones de producir tamaña cantidad de aviones; una de las razones es que hoy en día los aviones cuestan aproximadamente 300 veces más que lo que costaron los SPITFIRE originalmente. Es por ello que ante la reducida cantidad de aviones de que se puede disponer, inclusive en un conflicto largo con total apoyo de la industria privada propia, es obvio fundamentar un aumento en la cantidad de misiles en uso. De aquí en más se tendrá que volver a apreciar que cada avión es simplemente una plataforma voladora y que tiene que ser aprovechado al máximo en materia de misiles.

Esto trato de decirlo sin interferir en la discusión presentada con respecto a los cañones y los misiles, pero el punto que acabo de exponer creo que es fundamental. Por otro lado los misiles deberán ser diseñados para ser más inteligentes, porque así como mencionabamos antes que el operador de misil tiene solamente 15 segundos para poder detectarlo y apuntar, por otro lado también es cierto que el piloto tiene sólo 15 segundos para poder hacer la aproximación final al blanco. En consecuencia los misiles deberán en lo posible depender cada vez menos de las posibilidades del piloto.

En una situación ideal, esos misiles por ejemplo cuando se ataque una fuerza naval, deberían estar capacitados como para ser lanzados por el avión desde muchas millas antes del objetivo final; el misil avanzar por sus propios medios hacia la formación y comenzar a hacer maniobras evasivas por si solo e ir descartando inclusive

los primeros blancos que detecte, de forma tal que si estos supuestos blancos fuesen chaff o cualquier otro tipo de contramedida electrónica, pudiese tener la inteligencia necesaria para por ejemplo, entrar en la zona, girar a la izquierda, descartar dos blancos, girar a la derecha, descartar un blanco y finalmente impactar sobre el segundo. Así como se dijo que los aviones no deberían ser utilizados en lo sucesivo para atacar aeropuertos, quizás en el futuro se logre que los aviones conceptualmente sean plataformas aéreas de las cuales enviar misiles y por lo tanto no tengan necesidad de entrar en la zona del blanco.

Panel de discusión con respecto a OPERACIONES AEREAS Y USO DE MISILES.

El panel estaba integrado por los disertantes y personal retirado inglés y americano.

Pregunta: Según fuentes argentinas se menciona que hubo una mayor eficiencia por parte de los aviones Harrier en la segunda mitad del conflicto.

Respuesta: ¿Usted se refiere a la apreciación de pilotos argentinos?

Pregunta: Efectivamente, esta versión viene de pilotos argentinos.

Respuesta: No encontramos ninguna razón concreta con respecto a esa apreciación y por venir de quien viene la respetamos. A nuestro entender lo que quizás suceda es que para la segunda mitad del conflicto los mejores pilotos argentinos habían sido abatidos y quizás los que subsistían se encontraban sustancialmente más fatigados.

Pregunta: El sistema superinteligente posible del día de mañana parecería que será difícil de llevar a cabo, dado que lo que Ud. propone llevaría la resistencia de materiales a grados límites.

Respuesta: Yo entiendo que con la tecnología que actualmente se dispone podemos llegar a eso, en cuanto a materiales, lo que falta desarrollar es quizás la parte electrónica. Tenga usted en cuenta que los misiles actualmente en uso resisten en el momento que cambian su curso o hacen un giro pronunciado, prácticamnete 2,5 macht.

Pregunta: (La formula un francés de la fábrica Roland) Desearía que durante esta conferencia no se siga confundiendo información con desinformación. Hasta donde nosotros podemos estar enterados hubo algunas deficiencias con los Rapier; concretamente el hundimiento del Sir Gallahad podría haber sido evitado si los Rapier hubiesen entrado en funcionamiento en el tiempo adecuado. Por otro lado debo informarlos que con la información que disponemos al momento entendemos fueron disparados por las fuerzas argentinas 8 misiles Roland, de los cuales 2 de ellos no llegaron a ningún blanco, uno de ellos hizo impacto en una bomba arrojada por un Vulcan y 5 de ellos hicieron impacto en aviones Harrier aparentemente con pérdida total de los mismos. Traigo estos temas a colación no como una propaganda, sino simplemente para evitar que la victoria confunda los hechos. (Esta exposición fue seguida de aplausos).

Respuesta: El señor COPLEY hace referencia a que si bien nota durante la conferencia alguna tendencia a hacer propaganda comercial, quiere volver a recordar que a pesar de los esfuerzos comprometidos por él personalmente no se pudo traer versiones del lado argentino, o las que se han traido son realmente muy pocas; es por ello que vuelve a reconocer que el aporte de la industria privada es importante para saber que ha sucedido, si bien reconoce que se deben podar los excesos de propaganda.

Pregunta: ¿Cuántos Rapier fueron lanzados durante el conflicto?

Respuesta: Lamentablemente no tenemos en estos momentos esa cifra. Sería realmente muy interesante poder contestarlo. Sin embargo pensamos que en una situación normal o sea sin los imprevistos lógicos de la acción, entendemos que el Rapier tiene un porcentaje de letalidad de aproximadamente el 85%, lo que pensamos es bastante apropiado.

Pregunta: ¿Los Rapier no tuvieron ningún inconveniente?

Respuesta: Bueno, en una guerra siempre hay inconvenientes, por ejemplo le puedo mencionar que en la zona del Estrecho San Carlos y en la zona de San Carlos especialmente, hubo inconvenientes en el

sistema IFF (Identification Friend/Foe) por las características de la zona, por el ataque a baja altura, por la cantidad de barcos en el área, descubrieron luego de un día de operaciones, que era más efectivo desconectar el sistema IFF de los lanzamisiles Rapier y efectuar la identificación por medios visuales.

Pregunta: No se han hecho muchos comentarios con respecto a operaciones de tierra o en tierra. ¿Que pasó con las tropas SAS?

Respuesta: No puedo referirle obviamente cuales fueron los objetivos y los logros de las tropas SAS, pero puedo indicarle en líneas generales que fueron altamente efectivas. Aparte de una misión que los llevó a continente argentino para la destrucción en tierra de los Super Etendard, sobre lo cual no quiero abrir juicio en este momento, debo indicarle que su operación fue muy importante a pesar del Teatro de Operaciones que ofrecía mucha dificultad. Estas tropas son tropas especialmente entrenadas que han hecho inclusive varias misiones de entrenamiento y práctica fuera de Inglaterra, especialmente en la zona de la NATO y que estaban acostumbradas a trabajar en forma de equipo y así lo hicieron a pesar de la enorme dificultad que significa la operación en las Malvinas por las condiciones del suelo y por las condiciones climáticas y al hecho de que prácticamente todas las operaciones se hicieron de noche. Le puedo indicar que las tropas especiales se comportaron tan maravillosamente como los paracaidistas, por supuesto yo soy paracaidista (risas y comentarios generales).

Pregunta: ¿Hasta que punto se puede generalizar lo que se ha dicho en el sentido que los misiles son más efectivos que los cañones?

Respuesta: No digo que se pueda generalizar, lo que digo es que la lección del conflicto de las Malvinas es que los misiles fueron realmente más efectivos que los cañones (aquí vuelve a suceder otra intervención y fuerte cambio de opiniones entre los representantes comerciales de los misiles y de los cañones).

Se escuchaban diversos comentarios como por ejemplo: Hay que tener en cuenta que para mover un sistema de cañón moderno, es necesario

un camión de grandes capacidades para el radar, otro de gran capacidad para la munición, otro de gran capacidad para el generador y finalmente transportar el cañón. Además todo esto con aproximadamente 28 operadores, mientras que para instalar un lanzador de misiles se requiere mucho menos movimientos y no más de cuatro a seis operadores.

Otro comentario escuchado: Los cañones tienden a modernizarse y ser mucho más compacto y portátil su equipamiento periférico.

Otro comentario: El cañón tiene grandes ventajas para el entrenamiento porque es bastante factible que los operadores sean entrenados con numerosos disparos, mientras que por otro lado debido al alto costo de los misiles, es poco probable que los operadores de misiles sean entrenados con numerosos lanzamientos.

La disputa con respecto a cañones y misiles aparentemente podría seguir durante varios días, pero las opiniones de equilibrio fueron expresadas un poco con las siguientes conclusiones:

1. Los cañones no son necesariamente menos efectivos que los misiles.
2. Lo que está sucediendo hoy en día es que se nota o se toma conciencia de la efectividad y practicidad de los misiles.
3. Los cañones resultan altamente útiles en uso superficie-superficie.
4. Una combinación de cañones y misiles resulta ser quizás el sistema defensivo más importante; por un lado aparentemente un buen sistema de misiles da una posibilidad de 80% de cobertura y esto se podría ampliar sustencialmente y de hecho se amplía con la combinación de defensas de misiles y cañones, no solamente en tierra sino también en barcos.
5. Evidentemente el sistema de combinación de defensa entre misiles y cañones también tiene que tener en cuenta el principio de la defensa en profundidad.

   Aparentemente las tropas argentinas en tierra no tenían bien or

ganizada sobre la base de la profundidad.

Pregunta: Podría explicarse como fueron abatidos los Harriers ingleses?

Respuesta: Bueno, como usted verá hay algunas pequeñas diferencias de opinión con respecto a la cantidad de Harrier abatidos por misiles Roland o por Blowpipe y aún por fuego de artillería menor, pero si bien no tengo el dato concreto le puedo reafirmar que no hubo bajas de Harrier en combates aire-aire.

Otras expresiones:

- Los misiles Rapier utilizados por los ingleses son esencialmente los tipo A. La nueva versión de los Rapier no se encuentra todavía en servicio y faltará aproximadamente un año para ello.
- La defensa aérea argentina contaba por lo menos con un sistema de radar moderno indispensable para Alarma Antiaérea Temprana.
- Se vuelve a insistir en que los Harriers abatidos no fueron más que 5 durante el combate, supuestamente 4 de ellos por disparos de armas y 1 de ellos por disparo de misil. Si se tiene en cuenta que hubo 500 salidas para ataque terrestre de los Harrier y que solamente 5 fueron perdidos, el 1% de efectividad es algo muy importante.
- La inteligencia inglesa había marcado que la totalidad de aviones argentinos en operaciones tenía una posible distribución de este tipo: Sky Hawk 53 - Mirage V 36 - Mirage III 17 - Pucará 50 o más - Camberra 6 - Super Etendard 5 - C-130 7- KC-130 2. En cuanto a los misiles, estarían en operaciones: Roland - Tiger Cat - Exocet - Blowpipe - Sea Dart.
- La cuenta de bajas argentinas según el representante de la Aerospace (industria inglesa) es la siguiente: 6 aviones argentinos perdidos durante maniobras de evasión - 14 aviones argentinos derribados por misiles no de fabricación de Aerospace - 54 aviones argentinos derribados por armamento de la Aerospace entre ellos los Harrier, los Rapier y los Sea Dart.
- La falta de unanimidad en la cuenta de las bajas de los aviones

argentinos es evidente. Aquí tenemos otro ejemplo: Uno de los disertantes dijo que tenía constancia que por lo menos un Tiger Cat argentino había producido la baja de un avión inglés.

- Los proveedores y defensores de Blowpipe hacen mucho hincapié en la efectividad del mismo, pero aparentemente la Marina inglesa no estaría muy convencida todavía. Dichos proveedores y defensores remarcan que todo tipo de barco, inclusive pequeños y aún mercantes de la Marina inglesa deberían estar equipados de aquí en más con Blowpipe o contenedores lanzadores de baterías de seis a ocho Blowpipe. Por ejemplo se hizo hincapié en que una situación de este tipo hubiese sido ideal como defensa puntual del Queen Elizabeth II.
- Con respecto a la munición, en muchas oportunidades se indicó que en ciertos momentos disponía de mayor cantidad de munición la tropa argentina que la inglesa. Por ejemplo, los paracaidistas que atacaron Darwin lo hicieron y llegaron a la victoria con absolutamente su última munición.
- Los ingleses están convencidos que los argentinos contaban con información adelantada con respecto al desembarco inglés en Bluff Cove (Bahía Agradable) y no saben como los argentinos pudieron haber obtenido esa información.
- En la misma línea de lo que es el comentario anterior sobre munición se hizo un comentario respecto a que los ingleses se sorprendieron mucho cuando Goose Green cayó, al encontrar que las tropas argentinas tenían una importante cantidad de armas de 30 mm. y su respectiva munición que no habían sido utilizadas en ningún momento.
- Otro comentario con respecto a las bajas de los aviones ingleses divide así: 1 por Blowpipe - 1 por Roland - 3 por armas menores desde tierra.

EL IMPACTO DE LA GUERRA SOBRE LA NATO

Mayor Sir Patrick Wall (Miembro del Parlamento).

El señor Wall menciona inicialmente que no existe información exacta sobre esta guerra, ni existirán hasta que se terminen todas las investigaciones públicas que se están realizando. Hace especial hincapié en el valor de estas investigaciones, especialmente profundas en el caso de este conflicto.

Según el disertante, la clave del éxito de la guerra es el completo apoyo político y la constancia demostrada por las autoridades del Gobierno inglés.

Menciona que los países de la NATO se comportaron bien, accionando desde dos puntos de vista diferentes. Por un lado cortando de inmediato el envío de armamentos hacia Argentina y por otro lado implementando en forma rápida y concreta una serie de medidas económicas contra Argentina.

A su criterio la campaña de las Malvinas es absolutamente única en la historia de la NATO. Unica por lo imprevista que resultó, única por la distancia a recorrer y única por la elevada moral y el espíritu que rápidamente encendió sobre las personas ya sean militares o civiles que debieron actuar en la contingencia.

Las lecciones del conflicto sur pueden ser divididas en tres aspectos:

1. Preparación de la Fuerza de Tareas.
2. Asalto anfibio.
3. Operaciones en tierra.

- Preparación de la Fuerza: Inicialmente ésta comprendió 30 navíos de guerra y 70 buques mercantes. Estos buques mercantes fueron tan diversos en tonelaje, como el Queen Elizabeth II, el barco de línea más grande del mundo, hasta pequeños pesqueros. Lo que realmente resulta asombroso, inclusive para el disertante, es la rapidez con la que se pudieron movilizar estos buques.

  El viernes 2 de abril se tuvo noticia de la invasión y 3 días después el lunes 5 de abril, ya se encontraban navegando.

SECRETO

Esto sólo pudo haber sido conseguido gracias no sólo a los planes que si bien se habían efectuado, nunca se habían realizado pensando en este tipo de teatro de operaciones, sino también gracias a la legislación que en su momento adoptó Inglaterra, de forma tal de poder hacer uso de barcos civiles sin necesidad de declarar el estado de emergencia en el país. Esto es extremadamente importante ya que esta previsión de tipo legal la tiene solamente Estados Unidos o Inglaterra, mientras que las demás naciones de la NATO deben tener en cuenta esta enseñanza para adoptar disposiciones locales similares.

(Nota del redactor de este informe: Sin embargo, a través de charlas de pasillos se pudo confirmar que el 2 de abril ya existía una importante cantidad de barcos ingleses que habían sido requisados por parte de la Marina inglesa. Esto significa que no es real que la flota haya salido a navegar en tres días sino que las autoridades navales dispusieron de algún tiempo extra de preparación. Entendemos que ese tiempo extra no fue más de tres días).

El disertante vuelve a hacer hincapié en la importancia que las autoridades de la NATO transmitan a sus respectivos gobiernos la necesidad de pasar la legislación apropiada, de forma tal que en un momento de crisis y sin necesidad de declarar el estado de emergencia nacional, las autoridades puedan incautar, alquilar o tomar control de alguna manera, no solamente de barcos sino también de aviones y en general cualquier propiedad civil.

Otra lección importante para la NATO del conflicto de las Malvinas es como muchos barcos civiles, especialmente los transportadores de containers pueden ser fácilmente adaptados para operaciones bélicas.

La carencia en un momento dado de portaaviones puede ser substituido fácilmente con barcos containers especialmente preparados para el transporte y operación de helicópteros. Incluso si se tomasen pequeñas previsiones en el diseño de futuros barcos contenedores, los mismos podrían ser fácilmente adaptables en forma rápida a un uso sustitutivo como portaaviones. Si bien el uso de los barcos como se ha explicado es evidentemente importante en una operación a 8.000 millas de distan-

cia no se puede realizar sin una base de apoyo. En este sentido la base de la isla Ascención probó ser absolutamente indispensable para este tipo de operaciones.

Así como la base de Ascención mostró ser indispensable, habrá que rescatar el concepto y ver en que otros lugares del mundo bases de este tipo son indispensables.

Quizás su importancia estratégica fue tan significativa como el aporte de los helicópteros en este conflicto. La tenencia de bases de este tipo es fundamental no solamente en los océanos sino en otras partes del mundo. La posesión de una base como las Malvinas resulta por lo tanto fundamental.

Otros de los puntos a destacar es la altísima utilidad de los submarinos nucleares, aún en una guerra convencional como fue la presente.

- Asalto anfibio: Las características fundamentales del asalto anfibio es que no hubo ningún tipo de oposición. Sin embargo hay que establecer que no se puede intentar el día de mañana ningún tipo de asalto anfibio sin tener un control aéreo total. Si las fuerzas aéreas argentinas hubiesen hundido en vez de las naves de guerra inglesas, los transportes o los barcos de desembarco anfibio, el desembarco en las Malvinas no se hubiese podido llevar a cabo.

La decisión inglesa del desembarco en San Carlos probó ser la apropiada. Por un lado la entrada en el estrecho San Carlos de una importante fuerza naval era posible y fácil de controlar en ambos extremos del estrecho con la mera colocación de uno o dos navíos en cada boca. Por supuesto había enormes riesgos derivados del posible ataque aéreo argentino y de la deficiencia de la Alarma Aérea Temprana.

Sin embargo la decisión probó ser la correcta aún a pesar del elevado daño sufrido.

Confirmando lo que se ha dicho anteriormente el hundimiento del Sheffield a manos de un Exocet, entendemos que este hecho ocurrió en un momento en que el sistema de radar principal del Sheffield estaba desconectado porque el barco se encontraba en comunicaciones satelita-

rias.
Las otras bajas sufridas en la zona de San Carlos por navíos de la Task Force fueron por ataques convencionales de bombas. Sin embargo a pesar del ataque del Exocet, una de las cosas que más llama la atención son las características del incendio desarrollado a bordo del Sheffield, esencialmente la gran cantidad de humo tóxico, la cantidad de conductores eléctricos que se quemaron, el derritimiento de las estructuras metálicas de aluminio debido al alto calor es quizás esta parte la que merezca mayor investigación.
Y esta investigación se está llevando a cabo, dado que todo barco de la Marina inglesa que es hundido lleva importantes investigaciones que pueden demandar varios años; con el tiempo estas investigaciones serán públicas.
Desea recalcar que la operación de desembarco anfibio fue absolutamente exitosa, pero como lo dijo antes, no hubo prácticamente ningún tipo de oposición.
Vuelve a remarcar lo esencial que significa contar con un sistema de Alarma Aérea Temprana, con un sistema de defensa en profundidad.
Ante la carencia de alarma temprana se busca ahora que los helicópteros desarrollen este tipo de capacidad.
No desea entrar en disensión con respecto a misiles y cañones, pero desea recordar la importancia que tienen estos últimos y como aún los cañones de bajo calibre de las fragatas pudieron realizar extensos bombardeos sobre la zona contigua a Puerto Stanley lo cual significó no solamente algunas bajas, sino especialmente un efecto psicológico a su criterio desvastador sobre las tropas de tierra.
Indica que el Sea Wolf no se probó contra misiles y que existe en diseño y saldra próximamente un nuevo Sea Wolf de tipo más chico preparado para todo tipo de barco inclusive para ser instalado en barcos mercantes.
Hace hincapié en la importancia de los barcos diseñados específicamente para ataques anfibios y su anhelo de que las fuerzas de la NATO cuenten con mayor cantidad de este tipo de unidades.

Asimismo recuerda que hoy es absolutamente indispensable estandarizar en cierta forma el armamento Occidental sobre todo en materia de misiles, de cierto tipo de aviones y de torpedos. A su criterio, es absolutamente ridículo que exista la cantidad de torpedos diferentes que hay hoy en día entre las marinas de la NATO.

Vuelve a hacer hincapié con respecto a todos los esfuerzos necesarios para desarrollar la Alarma Aérea Temprana.

Si bien el Sea Wolf es un excelente misil contramisil lamentablemente no pudo ser probado en esta campaña (dice que no existió la oportunidad para ser probado).

De todos modos con la velocidad con que se desarrollan los acontecimientos hoy en día es evidente que ningún Capitán de barco puede estar feliz con el hecho de que su defensa puntual se ha reducido a sólo 14 ó 15 segundos. Por lo tanto aún suponiendo que exista una buena familia de misiles contramisiles, es evidente que ese es el último círculo de defensa en el cual es muy incómodo moverse.

-<u>Operaciones en tierra:</u> Como ustedes saben la operación en tierra fue bastante corta. Realmente comenzó luego del desembarco en San Carlos con un ataque que podría definir como muy contundente y efectivo sobre la zona de Goose Green y Puerto Darwin. La victoria fue rápida, provocando una importante cantidad de bajas al enemigo y obteniendo aproximadamente 1.400 prisioneros.

El comentario más importante que se puede hacer en las operaciones terrestres sin embargo está referido a los helicópteros. La enorme ver versatilidad demostrada por los helicópteros no se puede decir que fue una sorpresa pero realmente fue una comprobación muy importante en este Teatro de Operaciones. Los helicópteros no solamente fueron utilizados para hacer avanzar la tropa inclusive por detrás de las líneas enemigas sino que sirvió para todo tipo de movimiento de cargas, movimientos de piezas de artillería, misiones de rescate, reconocimiento y evacuación. Realmente los helicópteros jugaron un papel fundamental en este conflicto.

Los helicópteros usados según este disertante fueron los siguientes:

30 Sea King - 17 Wessek - 4 Chinook (de esos 4 Chinook aparentemente 3 se perdieron con el hundimiento del Atlantic Conveyor, como aparentemente 8 Wessek también). Después de las operaciones 3 Chinook más llegaron a las Malvinas.

El disertante hace una mención con respecto a los Tanques Livianos Scorpion, que pudieron moverse bastante bien a pesar del terreno terriblemente difícil, inclusive sobre nieve.

Por supuesto en condiciones de nieve estos tanques habían sido ya probados en Noruega y otras áreas de la NATO, pero en este conflicto probaron además moverse en un terreno totalmente inconsistente.

Lo otro que quiere dejar perfectamente en claro es que a las tropas argentinas no les faltó municiones, ni comida, ni armas. Fueron encontrados los depósitos abarrotados de estos tres tipos de elementos y por supuesto los problemas de distribución que pudo haber habido son típicos en cualquier guerra.

Con respecto a la moral, menciona que la de los conscriptos era regular y la de los oficiales argentinos era bastante buena a buena y que lo que realmente fue pésimo es la conducción táctica y estratégica.

El disertante termina la conferencia haciendo una referencia a que este conflicto es realmente la guerra del pasado y no necesariamente la guerra del futuro. Que son pocas las lecciones o el impacto que pueda apreciarse sobre los países de la NATO y que esas lecciones han sido comentadas durante su conferencia. A juicio del disertante, el peligro de una gran confrontación en la NATO se produciría a partir del año 1984 y hasta el 86 con el cambio de los líderes políticos de Rusia, los cuales quizás por imprevisión o quizás por tener sangre un poco más joven puedan intentar algún tipo de conflagración internacional y por lo tanto él entiende que esos son los años donde se debe esperar una crisis importante.

COMANDO Y LOGISTICA DE LAS FUERZAS BRITANICAS

Disertante: Neville TROTTER, Miembro del Parlamento.

Lamentablemente el casette correspondiente a esta conferencia fué interferido por lo menos por dos señales diferentes. El participante de la conferencia entiende que esto se debió a una persona de origen árabe que se sentó casualmente y que entendemos pudo haber sido involuntariamente, como sucedió en otro momento de la conferencia haber bloqueado la grabación.
Por lo tanto lo expresado de aquí en más está basado en las notas tomadas por el participante.

El señor TROTTER desea hacer hincapié en dos puntos principales, los cuales son:

1. En la guerra lo inesperado iba a ocurrir.
2. No había planes para movilizar la flota y si estos planes hubiesen sido hechos para esta operación antes del conflicto, la masa de planificadores hubiese dicho que esto no era posible.

A continuación el señor TROTTER describe a los Comandantes que tomaron parte en el conflicto, haciendo mención de sus nombres completos e identificándolos con los grupos que comandaban. No se tomaron notas con respecto a este detalle.
Se indicó que en total la operación involucró unos diez mil soldados y diez mil marinos, en su totalidad tropa profesional, habiéndose incorporado como reservistas solamente unas veinte personas. La mayoría de estas eran carteros, ya que el conflicto y la movilización pertinente de personal significó un aumento importante en las operaciones de correo.

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Todas las tropas que tomaron parte en las operaciones tuvieron un premio en sus sueldos de un 150 % sobre la retribución normal.

Lo que más se resaltó a través de la conferencia es que la Fuerza de Tareas tenía un único comandante, que tenía tal independencia en su accionar que solamente volvió a hablar una vez que regresó de cumplir su objetivo en el Sur; volvió a hablar se refiere a hacerlo con el Ministro de Defensa.

Durante esta conferencia, en el panel de preguntas, los militares retirados americanos participantes en la conferencia hicieron nuevamente hincapié sobre la gran importancia que significa esto y uno de ellos contó una anécdota con ribetes cómicos de lo que significa el hecho de tener una cadena de comando.

Un marino retirado que en su momento era Comandante de la Sexta Flota en el Mediterráneo menciona que en una operación de toda la flota donde tenían que retirar unos civiles americanos de un hotel ubicado en cierto país de la zona del Mediterráneo, él se encontraba al Comando total de la Flota en su puente, con un teléfono en una oreja que a su vez le servía de puente con una estación de radio en la playa, que a su vez hacía de puente con una estación de radio dentro del micro que estaba evacuando a ese personal civil, mientras que en la otra oreja tenía un teléfono con una estación de comunicaciones que a su vez hacía de puente con el Pentágono y que prácticamente toda su operación fué tratar de conciliar lo que escuchaba por la oreja derecha con lo que escuchaba por la oreja izquierda.

Demostraba este Comandante como en esa operación él simplemente se redujo a la tarea de una vulgar telefonista.

Los ingleses mencionan que no siempre tuvieron la suerte de poder operar con una línea de comando tan corta y tan monolítica, pero

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que sin embargo en este conflicto afortunadamente se dió y el Comandante a cargo de la flota era el total responsable por las operaciones de la misma, consultando muy pocas operaciones a INGLATERRA, exclusivamente aquellas que tenían algún tipo de connotación política.

En lo que respecta a la logística, el conferencista dió la idea de que se utilizó prácticamenté todo lo que existía disponible y preparado en un alistamiento normal en los diferentes depósitos de las tropas inglesas. El hecho de tener normalmente varias campañas anuales en países de la OTAN diferentes a INGLATERRA, los ha facultado durante muchos años a hacer desplazamientos masivos de tropa y la logística pertinente, por lo cual ya ese tipo de ejercicio estaba totalmente desarrollado. Simplemente hubo que tomar de los depósitos aquellos elementos marcados para actividades en el ARTICO y en función de eso derivarlo todo a la Flota que en este caso iba a operar en el ANTARTICO.

Se resalta nuevamente la dificultad de apoyo y aprovisionamiento a una Flota que se desplazó hasta más de 8.000 millas e indicando que prácticamente todo operó bien, desde la parte combustibles hasta la parte de agua potable y sin olvidar inclusive los buques de apoyo tipo taller.

Dentro del sistema inglés de movilización marítima se tiene perfectamente en cuenta la marina mercante, propia o contratada, inclusó de otras nacionalidades.

El factor fundamental en lo que se refiere a la posibilidad de accionar inmediatamente, es que existía un marco legal adecuado para este tipo de operaciones.

Explicó cómo ciertos barcos requisados tenían difíciles situaciones legales a resolver por posibles indemnizaciones por parte de

pasajeros o carga comprometida con anterioridad y que no pudo cumplimentarse por el hecho de la requisación. Es por eso que a solicitud de los armadores privados, muchos de los barcos fueron requisados y no charteados, lo cual salvaba desde el punto de vista legal a los armadores privados de los posibles juicios por indemnización que seguramente iban a ocurrir el día de mañana.

Si bien en anteriores pasajes de la conferencia se dió la idea de que la Flota fué movilizada a partir del 2 de abril y tres o cuatro días después la misma se encontraba navegando, es indudable a través de pequeñas pistas o indicaciones que dió el disertante, se dió la idea de que muchos de los barcos mercantes ya se encontraban en proceso de requisición días antes del 2 de abril. Por otro lado los contratos de charteo en los casos que corresponde y los detalles de requisición, aún a la fecha 2 y 3 de septiembre de 1982, no habían sido terminados de escribir, lo cual significa que aún a esa fecha no existía un acuerdo en los montos de alquiler por charteo o de indemnización por requisición que el gobierno inglés debía abonar a los diferentes armadores privados a raíz del conflicto del ATLANTICO SUR.

Esto nos lleva a indicar que la cifra de gasto total que significó las operaciones de la fuerza de tareas, que según el señor TROTTER fué de 1.800 millones de dólares, es probablemente muy baja y según comentarios de otros participantes de la conferencia, debe entenderse que esa cifra llegue fácilmente a los 2.500 millones de dólares considerando el período hasta la finalización de la parte bélica activa.

Esto significa que a esa cifra de 2.500 millones de dólares debe sumársele luego todos los gastos operativos que pueda significar seguir manteniendo una dotación de 3.000 ó 3.500 hombres en las

MALVINAS, más el equipo y la flota correspondiente, todo eso abastecido desde la ISLA ASCENSION en lo que se refiere a transporte aéreo además de los medios marítimos normales.

A esa cifra desconocida que se indica en el párrafo anterior también deben agregársele todas aquellas inversiones que los ingleses se vean obligados a realizar en las ISLAS MALVINAS durante esta nueva etapa del conflicto con ARGENTINA.

El señor TROTTER explica que no se seleccionó la tropa que iba a ocuparse del conflicto en el ATLANTICO SUR, sino que simplemente se recurrió al mecanismo de alerta que normalmente se tiene. La demostración de esto es que un Regimiento que tuvo que ser desplazado a las MALVINAS dos meses antes estaba realizando tareas de guardia en el Palacio Real inglés. Esto significa que la tropa enviada es aquella que según los planes orgánicos normales en INGLATERRA, le correspondía estar en estado de alerta. Esto se tuvo que hacer así porque el plan general es ese, pero que por otro lado por la sorpresa total, no se hubiese podido hacer de otra manera ya que el resto de la tropa que no se encuentra en estado de alerta, tiene un tiempo de movilización más largo del que tuvo que tenerse en cuenta para la operación en el ATLANTICO SUR. Si bien no les causa sorpresa, pero si les causa una gran satisfacción ver como los jóvenes oficiales que realmente no habían tenido participación en una acción bélica importante, actuaron con la misma entereza y profesionalidad que aquella con que lo hicieron sus antepasados en la Segunda Guerra Mundial.

Como ejemplo indica que uno de los comandantes de uno de los batallones de paracaidistas falleció en combate en las MALVINAS; en consecuencia se determinó el reemplazante en INGLATERRA, quién salió ese mismo día en un vuelo a la isla ASCENSION, con posteriori-

dad voló hasta las ISLAS MALVINAS en un HERCULES durante a-proximadamente 18 horas; se tiró en paracaídas de noche sobre el agua munido de un sistema para ser ubicado electrónicamente, fue rápidamente ubicado y sacado del agua por la flota inglesa que a su vez en forma inmediata lo derivó por helicóptero hasta SAN CARLOS, allí fue tomado por un vehículo SCORPION y llevado hasta GOOSE GREEN presentándose a su tropa e indicando que era el relevo del Comandante fallecido.

Parece ser que este rápido reemplazo, a pesar de la enorme distancia, ha producido el efecto de elevar la moral de la tropa inglesa y que el único comentario adverso fue de los ROYAL MARINE quienes en tono jocoso dijeron: que gracia, con paracaídas lo puede hacer cualquiera, nosotros lo hubiéramos hecho sin él.

En lo que se refiere a la logística y extraído de charlas de pasillos se puede llegar a la conclusión que la mayoría de las tropas inglesas en el momento de la caída de PUERTO DARWIN y GOOSE GREEN se encontraban prácticamente sin ningún tipo de munición y por lo menos hacía 24 horas que se encontraban sin agua potable.

Asimismo hubo comentarios que en el momento de la caída de PUERTO STANLEY las tropas inglesas ya se encontraban con serios problemas de abastecimiento de agua potable.

En líneas generales el disertante trató de dejar en claro que el abastecimiento en calidad en cuanto a pertrechos y ropa de los argentinos no era tan bajo como algunas publicaciones periodísticas indicaron. Que como en toda guerra existe una disparidad en los frentes en cuanto a las posibilidades de aprovisionamiento, pero que se encontró luego de la caída de PUER

TO STANLEY en los depósitos argentinos, calidad y cantidad de elementos suficientes para ese tipo de campaña.

Sin embargo hay ciertos comentarios que deslizó que a juicio de los ingleses hay una disparidad en cuanto al equipamiento argentino. Dice que por un lado se encontró ropa argentina bastante apropiada para el tipo de operación, pero que por otro lado se encontró ropa totalmente anticuada y perteneciente a varios decenios atrás en cuanto a vestimenta.

Como ejemplo indica que le sorprende ver como la ropa de combate de las tripulaciones de los navíos argentinos es totalmente anticuada y no tiene en cuenta para nada la posibilidad de incendio a bordo; incluso menciona que entiende que los oficiales y tropa de la Marina Argentina tienen todavía vestimenta con fibra sintética, lo cual no solamente facilita su combustión sino que provoca una capa de carbón sobre la piel incrementando la quemadura.

Existía superioridad inglesa en cuanto a vestimenta apropiada para no ser detectada fácilmente por visores nocturnos. En general el disertante trato de resaltar que la tropa inglesa estaba alistada con los medios que normalmente disponen ellòs y que no se envió nada especial y que no corresponda específicamente a los planes normales que tienen para este tipo de posibilidades bélicas.

El disertante vuelve a recalcar acerca de la sorpresa que significó este conflicto (el participante hace notar: el grado de hincapié que hacía el señor TROTTER sobre la sorpresa de este conflicto, no dejaba de estar basado sobre el hecho de que él había visitado la ARGENTINA y CHILE y en el caso de la ARGENTINA con bastante profundiadad en las tres Fuerzas Armadas no hace más de un año y medio o dos años atrás y que por lo tanto si esto fué una sorpresa, él también se tenía que mostrar como sorprendido, ya que

durante su visita no fue capaz de detectar el posible conflicto con respecto a las ISLAS MALVINAS. Habiendo visitado a la Marina Argentina, él expresa que la sensación que se llevó en esos momentos es la siguiente: los oficiales le parecían gente muy lógica y aparentemente con un buen grado de conocimiento profesional y con respecto a los suboficiales no abrió ningún tipo de concepto; con respecto al personal de tropa, dice que tuvo oportunidad de visitar la Infantería de Marina, que supuestamente es la tropa mejor entrenada que tienen los argentinos y que si bien pudo observar cierto grado de profesionalismo, indica que para nada se asemejan en cuanto a sus características físicas a los marines o paracaidistas ingleses, los cuales pueden en todo momento realizar largas marchas de 40 ó 50 millas cargados con 40 ó 50 kilos y posteriormente entrar en combate. Este grado de capacidad física dice no haberlo visto ni imaginado por parte de la tropa de Infantería de Marina de la Argentina).

Durante la conferencia se le preguntó en un par de oportunidades al señor TROTTER con respecto a la cantidad de equipo enviado, negándose a contestar en todos los casos indicando que las investigaciones finales todavía no habían sido concluídos.

A nivel de pasillos y luego confirmando también otro conferencista, existe la sensación de que no se tiene una idea a esa altura (septiembre de 1982) muy definida la cantidad de equipo involucrado en esta operación. Parece ser que la idea que privó es enviar lo necesario y disponible, sin tener en esos momentos un informe final por lo menos disponible para este tipo de difusión, de la cantidad de equipo involucrado.

Con respecto a helicópteros por ejemplo se han mencionado cifras que difieren desde una cantidad total de 70 hasta 100 y posteriormente en una conferencia sobre helicópteros se indicó que la cifra

más probable es alrededor de 100. Por lo tanto no existe certeza en ese momento de cantidad de equipos utilizados.

Consultado con respecto a la cantidad de submarinos de energía nuclear utilizados en este conflicto, respondió con una evasiva indicando que desde la ISLA ASCENSION hacia el SUR en diferentes momentos de la contienda hubo entre uno y cuatro submarinos atómicos, amén de una cantidad que él no disponía de submarinos convencionales esencialmente para protección del avance de la flota desde ASCENSION hacia el SUR.

Durante esta conferencia y el panel que le sucedió se volvió sobre el tema de los Nimrod en el sentido de averiguar cuál había sido realmente la utilidad de los mismos.

(Nota del participante: el tema Nimrod está claramente indicado en un número de la Revista "L'Express" de Francia, de fines de septiembre o primera semana de octubre de 1982; aparentemente la nueva versión aún no puesta en operación del Nimrod como sistema de alarma antiaérea temprana sería la propuesta inglesa para la OTAN para poder suplir la falencia de AWACS del tipo que tiene ESTADOS UNIDOS, por lo tanto ya en la conferencia de septiembre había muchas preguntas con respecto al desarrollo de los Nimrod, dado que con posterioridad se vería que el interés fundamental es ver si estos aviones podrían o nó reemplazar en parte la función de los AWACS desarrollados por ESTADOS UNIDOS).-

OPERACIONES NAVALES: PREVENCION Y LIMITACION DE LAS AVERIAS EN BUQUES DE GUERRA.-

Disertantes: Vicealmirante retirado de la Marina de ESTADOS UNIDOS Frederik TURNER y el Dr. Ralph GILBY de la Compañía DUPONT de ESTADOS UNIDOS.-

Comienza la disertación el Vicealmirante TURNER indicando su aprecio y respeto por la Marina inglesa que ha demostrado con esta operación su preparación y profesionalidad. Indica que si bien se dijo que las lecciones de este tipo de conflicto las aprende solamente el perdedor no está de acuerdo ya que existen una gran gama de lecciones en este conflicto aplicables no solamente a marinas de guerra grandes, sino también medianas y chicas. Indica que a su criterio la marina de guerra de cualquier país es el instrumento de su política internacional y que eso día a día muestra su vigencia.-

Comenzando con el tema del conflicto específicamente, indica que a su criterio la reacción inicial por el hundimiento del Sheffield fue excesivamente histérica, inclusive hasta llegar a afirmar que los barcos no sirven más.-

Hoy en día con un poco más de tranquilidad se ve que los barcos siguen siendo de suma utilidad y que realmente uno de las cosas más importantes para una fuerza naval de superficie es su cobertura aérea ya sea por aviones o por misiles.-

Resalta el valor de los Grupos Aéreos de Ataque compuestos según la mentalidad de los Estados Unidos de América, en el sentido que en este conflicto se demostró que la composición de la Marina de Estados Unidos es la correcta. Esta composición con plataformas de mucha mayor capacidad y extensión permiten el empleo de una mayor cantidad de aviones; de forma tal que el objetivo principal es el de poder destruir los aviones atacantes aún antes de que se aproximen a distancia de tiro de la flota.-

Hace hincapié en lo correcto del diseño y la composición de la Marina de Estados Unidos en lo referente a portaaviones nucleares de gran envergadura, con suficiente cantidad de aviones como para no sólo garantizar una Alarma Aérea Temprana sino también un poder efectivo de interceptación del enemigo en todo momento.-

Hay otro punto sobre el cual desea hacer hincapié en esta conferencia y es con respecto a la guerra electrónica. A su juicio en esta conferencia se ha hablado poco de la guerra electrónica y él quiere profundizar un poco más sobre el tema.-

Estamos en la era de los misiles guiados y esto significa que los misiles son guiados y que por lo tanto pueden ser engañados. Existe una gran variedad de sistemas comprendidos dentro de la guerra electrónica para esa tarea, ya sea por el uso de señuelos o engaño electrónico.-

Esto es elemental hoy en día, ya que no importa el tamaño de la marina en cuestión, cualquiera de ellas puede disponer de misiles guiados o ser atacada por misiles guiados. Por lo tanto, hace hincapié en el término "softkill" que vendría a ser la supresión de misiles mediante interferencia electrónica. Todas las expresiones referidas a misiles y su posibilidad de anulación electrónica, también se aplican a torpedos. Haciendo mención a la cantidad de misiles que existen hoy en día en el mundo indica que por ejemplo, solamente del misil francés EXOCET hay más de 26 países que lo poseen en dos versiones diferentes, llegando a existir un arsenal en esos 26 países de aproximadamente 2.000 unidades. Esto sin contar todos los otros misiles que también existen en disposición de una cantidad de países aun medianos y menores.-

Hoy en día un misil que se acerque a un buque es esencialmente detectado casi a nivel del horizonte, que se encuentra generalmente a diez millas del buque. Esa trayectoria puede ser cubierta por el misil entre 40 y 60 segundos, por lo tanto queda solamente ese brevísimo lapso para detectarlo y hacer algo con respecto a esa amenaza. Una

de las cosas más efectivas y quizás más baratas de hacer es lograr que el misil sea seducido por otro blanco quizás más apetecible, por supuesto ficticio, de forma tal de poder desviar electrónicamente a ese misil fuera del objetivo inicial.-

Por eso el disertante hace especial hincapié en el mejoramiento de los sistemas de engaño y dentro de ellos el chaff. Cree que una de las grandes lecciones de este conflicto es lo que hay que progresar aún en materia de guerra electrónica de forma tal de ser efectivos, ya que misiles hoy en día los tienen prácticamente todas las fuerzas del mundo.-

Entiende que estos sistemas de guerra electrónica deben ser de reacción sumamente rápida y en la mayoría de los casos debrían ser automáticos ya que este plazo de 60 segundos o menos elimina la posibilidad de una intervención humana.-

Antes de terminar el uso de la palabra el Vicealmirante TURNER desea hacer un comentario con respecto a una anécdota de cuando él era jóven. Esta anécdota trata de confirmar la importancia del Comando de cadena corta y de permitir que la persona que está enfrentando la acción tenga su propia independencia para actuar.-

La anécdota se refiere a cuando él llegó para entrenarse hace muchos años atrás en Inglaterra y se le proporcionó un avión para hacer una misión. Las instrucciones que él recibió por parte del Comandante inglés fueron las siguientes: "salga y no deje de volver para la hora del té"; con esto el quiere resaltar como desde hace tiempo los Comandantes ingleses realmente confían en la capacidad individual en lo que se refiere a su toma de decisiones en la acción que enfrentan. A continuación el disertante pasa a ser el Dr. Ralph GILBY, el que indica lo siguiente:

A su criterio los destrozos e incendios causados por misiles en buques de guerra se pueden perfectamente sobrellevar hoy en día con materiales existentes en la tecnología actual de la industria de la aviación. A su criterio la industria naval de todo el mundo se ha

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quedado atrás con respecto al uso de esta tecnología y la misma se encuentra disponible en los constructores de aviones y satélites.- Explica por ejemplo que si bien el uso de modernos retardadores de propagación del fuego se encuentra desde hace años en uso masivo en la industria de la aviación y del espacio, los mismos no se encuentran aún desarrollados en la industria naval. Asimismo desea mencionar que no solamente hay que elegir materiales más apropiados, sino que también existen sistemas de extinción de incendios que todavía no han llegado a la industria naval. Por ejemplo, mediante el empleo de gases. Tiene conciencia de lo que significa el peso y el volumen en el diseño de un barco, pero cree y está seguro que con el uso de materiales y sistemas apropiados, no solamente se puede lograr una mejor defensa contra propagación y efectos del fuego sino que también se podría llegar a reducir el peso total, pero es consciente que los costos subirían. Desea al mismo tiempo recordar que se ha perdido el equilibrio en el diseño o sea que existe material electrónico de alto costo, que están mal defendidos por sistemas de bajo costo. Da como ejemplo compartimientos en los buques de muy pocos metros cuadrados cargados con cientos de miles de dólares de material electrónico y diseñados para ser defendidos con sistemas de incendio que costaban solamente decenas de dólares. Por lo tanto recalca que se tiene que ganar nuevamente equilibrio entre lo que se refiere a inversiones en electrónica con respecto a la defensa de esos equipos.-

Los mismos comentarios anteriores se pueden aplicar con respecto a la protección de la tripulación; esta protección debe ser aumentada no solamente con respecto a los riesgos de incendio y emanación de gases nocivos, sino también el diseño de armaduras livianas personales que protejan a la tripulación contra esquirlas.-

El Alte. TURNER interviene y recuerda que lo que se está considerando aquí no es solamente lograr la supervivencia de un navío, sino que pueda seguir cumpliendo con su misión.-

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Una persona del público manifiesta (esta persona está ligada con el diseño y construcción de navíos de guerra) que las consideraciones escuchadas no son desconocidas por la industria naval, pero que la industria naval tropieza con quienes deciden por el lado de los compradores en el sentido de que muchas veces no tienen en cuenta la necesidad de protección del navío en relación con los mayores costos involucrados.-

Durante esta conferencia se escucha el siguiente comentario; el proyectil que hizo impacto en el Sheffield comenzó un siniestro muy importante y luego recién explotó (durante los dos días de conferencia hubieron versiones encontradas con respecto a esto). Sin embargo a pesar del fuego y posterior explosión del misil Exocet, el Sheffield flotó durante seis días, lo cual presupone que las defensas a bordo contra este tipo de incendios demostraron ser absolutamente ineficientes. -

Asimismo se mencionó que el primer torpedo que hizo impacto sobre el General Belgrano anuló todo el sistema eléctrico por lo tanto impidió que el buque reaccionase ante el ataque del segundo torpedo y además impidió el empleo de los sistemas de control de averías.-

El especialista americano hace referencia a que él no comprende todavía como la industria naval no ha pensado todavía en desarrollar sistemas de control de averías totalmente independizados y automáticos a bordo de un buque. Dentro de su percepción del problema sugiere que los sistemas de control de averías deberían estar totalmente independizados y ser automáticos al considerarse el diseño naval.

Explica que los siniestros que se producen hoy en día a bordo de buques se propagan y son más intensos de lo que sucedía años atrás, de forma tal que los sistemas de control de averías deberían ser hoy en día automáticos y gobernados por pequeñas computadores que tuviesen además su propia energía.-

Durante esta conferencia se hace el siguiente comentario: el Exocet disparado sobre el Atlantic Conveyor no fue apuntado sobre este blan

co sino que fue apuntado sobre el blanco que representaba la Fragata Yarmouth el cual pudo emplear chaff con relativa efectividad ya que logró desviar el Exocet, pero lo hizo con tan mala fortuna que el mismo impactó sobre el Atlantic Conveyor.-

Este mismo comentario se recogió en dos momentos diferentes de esta conferencia.-

Se realiza otra pregunta sobre los daños sufridos por los barcos ingleses no por misiles sino por bombas, inclusive aquellos que recibieron daños menores. La contestación es que lamentablemente todavía no se dispone de datos de la Marina inglesa con relación a daños sufridos específicamente sobre barcos. Estas investigaciones en muchos casos pueden durar todavía aproximadamente un año. Sin embargo el disertante GILBY quiere expresar que se habla excesivamente con respecto al uso de aluminio y quiere hacer notar que no siempre es aluminio, sino que son estructuras de acero más livianas de lo que anteriormente se usaba.-

También el tema de aleaciones de metales está mucho más desarrollado en la industria espacial que en la industria naval, por lo tanto también sugiere que la industria naval tiene que buscar su propio equilibrio defensa versus costo teniendo en cuenta las aleaciones hoy en día disponibles en la industria espacial en cuanto a aleaciones de metales específicamente.-

El Alte. TURNER agrega que desde la época de los barcos de madera el mayor peligro en el mar es el fuego y hoy en día el gran peligro sigue siendo el fuego a lo que debe agregarse el humo y los gases tóxicos, generados también por el fuego. La ironía en cierta forma es que un barco está rodeado de agua que es el material que prima facie se debe utilizar para un fuego, pero que sin embargo para poder utilizarla es necesario energía y bombas. Por lo tanto adhiere totalmente a la idea de un diseño fragmentado e independiente de centrales de combate de siniestros, que tengan incorporado su propia fuente de

energía así como su sistema electrónico que permita una actuación automática.-

Se vuelve a hacer una pregunta con respecto a la eficiencia de los portaaviones chicos comparados con los grandes. El Alte. TURNER contesta que él ya ha expresado que a su criterio la efectividad de los portaaviones grandes es sustancialmente mayor, pero sin embargo no quiere abrir esta polémica ya que respeta profundamente el punto de vista de naciones como Francia e Inglaterra con respecto a portaaviones pequeños. A su criterio, lo que hay que enfatizar es el valor de los portaaviones grandes o pequeños que alargan sustancialmente el poder aeronaval, especialmente este conflicto del Atlántico Sur, ha demostrado la efectividad y la planificación que se tiene que hacer de aquí en más para el uso de todo tipo de barcos, inclusive mercantes que pueden ser transformados en plataformas sobre el mar. De esta manera y mediante el empleo de aviones como los Harrier se puede con un poco de inventiva y planificación, llegar a tener en muy poco tiempo una importante cantidad de plataformas sobre el mar ante una situación crítica.-

El otro punto que ha puesto de manifiesto el conflicto del Atlántico Sur es la posibilidad de lanzar los aviones sin poner proa al viento, lo cual implica que el buque continúa su derrota durante el lanzamiento y recuperación de aviones de combate. Indica que para su gusto personal le gustaría ver portaaviones más grandes en la flota inglesa, pero que el conflicto evidentemente puso de manifiesto no ya que los portaaviones deben ser más grandes o más pequeños, sino que los portaaviones son indispensables dentro de la Marina inglesa (esto provocó risas entre el público, ya que la frase fue hecha con un poco de ironía, dada la posibilidad de que Inglaterra hace algunos años atrás enfrentó la posibilidad de eliminar totalmente su flota de portaaviones).-

El Alte. TURNER trae otro elemento a colación y es el tiempo extre-

madamente malo y mar gruesa que se encuentra no solamente en el Atlántico Sur, sino también en el Mar del Norte. A su criterio los portaaviones de gran porte proporcionan una plataforma mucho más estable y por lo tanto mayor cantidad de días en operación aún en malas condiciones climáticas. Asimismo un portaaviones de gran porte permite el almacenaje de mayor cantidad de aviones especializados en mayor cantidad de misiones y roles diferentes.-

Otro participante hace el siguiente comentario: deseo reafirmar lo expresado aquí con respecto a la supervivencia de la misión más que la supervivencia del buque en sí; por otro lado quiero traer a colación en lo que se refiere a diseño, que a mi criterio también se ha perdido equilibrio en el diseño, en algunos casos otorgando excesiva comodidad a la tripulación y a la oficialidad en detrimento del espacio y peso para armamento y sistemas de defensa.-

Si tenemos en cuenta la reducida comodidad en que vive la tripulación de submarinos, nos damos cuenta que muchos buques de superficie han sido diseñados como hoteles, en detrimento de espacio, volumen y peso dedicado no solamente a sistemas de armas, sino también de control de averías.-

Otro participante hace el siguiente comentario: Deseo mencionar que se ha hecho, a mi criterio, un excesivo hincapié con respecto a la automatización, el uso de computadores y toda forma de tecnología moderna. No debemos olvidar que el factor decisivo en un buque de guerra sigue siendo su personal, por lo tanto hago hincapié en el entrenamiento y grado de profesionalismo del personal, los cuales se convierten en reales líderes en los momentos de acción, de forma tal que el auge de la tecnología no deje de lado este principio fundamental que se ha demostrado en todo tipo de batalla naval desde el comienzo de las mismas.-

OPERACIONES NAVALES: UNA NUEVA APROXIMACION A LA PROTECCION DE BASES Y FUERZAS NAVALES.

Disertante: Sr. RON CAIN.

Nota del participante: el Sr.CAIN es un industrial de los Estados Unidos de Norteamérica, poseedor de las patentes y de una sociedad comercial dedicada a desarrollar navíos pequeños de alta velocidad con un casco sumamente estilizado que se denomina Sea Knife. Adjuntamos al presente informe transcripción completa, así como material de este empresario americano. Debemos indicar que la inserción de este conferencista dentro de este tema, fué un poco forzada, dado que su alocución comienza diciendo que en el caso de haber existido este tipo de navóos en el conflicto de las Malvinas, los resultados hubiesen sido quizás sustancialmente diferentes.

El señor RON CAIN tiene solamente desarrollado un prototipo de este tipo de embarcación del cual se vieron fotos. Este prototipo es una lancha de carrera de alta mar. Las fotos que mostró de allí en más, son solamente diseños artísticos de la posible aplicación de este tipo de navío de alta velocidad para uso bélico, mediante la colocación de misiles o el uso de los Sea Knife como colocadores de minas o como barreminas o como navíos de patrullaje rápido.

El mismo conferencista explica que si bien las marinas de diferentes países todavía no se han "enamorado" de este tipo de navío, él aspira que lo hagan en un período bastante corto de tiempo y que las experimentaciones y pruebas se encuentran muy avanzadas. Son lanchas o navíos rápidos de alta velocidad hasta aproximadamente 80 nudos y que pueden realizar maniobras bastante bruscas como por ejemplo girar a 180° a 70 nuedos en no más de 3 esloras.

La concurrencia demostró poca inquietud con respecto a este conferencista y solamente demostraron interés los representantes de países con Fuerzas Armadas de menor desarrollo.

OPERACIONES DE HELICOPTEROS: COMO SE COMPORTARON

Disertante: Mayor General J. M. STRAWSON (Retirado - Representante de la Compañía Inglesa Westland).

Panelista: Brigadier General (Retirado) SAM COCKERHAM de EE. UU. (De la Aviación - A cargo del material aéreo en VIETNAM, que comprendía más de 3.500 helicópteros y aprox. 600 aviones).

Desde el punto de vista de planificación, el disertante desea mencionar que una de las cosas más importantes de este conflicto fue la rapidez y grado de reacción que tuvo la industria privada para poder apoyar la campaña inglesa. Ya se han dado varios ejemplos a través de la conferencia con respecto a este punto y él desea recordar que por ejemplo, los helicópteros con sistemas de alarma aérea temprana que hoy en día lleva el nombre de ILUSTRICUS luego del conflicto en la zona sur, fueron desarrollados estos sistemas en forma inmediata, pudiéndolo hacer luego de dos meses de iniciado el conflicto y que si bien habían existido planes en su momento para llevarlo a cabo, no existían los fondos necesarios. El conflicto de las MALVINAS liberó una importante cantidad de fondos para poder desarrollar proyectos como este así como otros más. A su criterio, en la historia de los helicópteros se ha llegado a un punto que describe hoy en día como el alto grado de confianza que los mismos tienen en la actualidad. Entiende que estamos en plena era de desarrollo de los helicópteros, los cuales actualmente se podrían llamar ya prácticamente de tercera generación.
La guerra de VIETNAM nos proporcionó la experiencia necesaria como para darnos cuenta de la importancia creciente de este tipo de equipamiento. Pero la guerra de las MALVINAS nos ha dado ahora un alto grado de confianza sobre ellos, aún sobre condiciones extremadamente difíciles que no habían tenido que afrontar en combate an-

teriormente. Las máquinas utilizadas en esta ocasión por la Marina inglesa fueron transportadas a más de 8.000 millas y participaron en todo tipo de operaciones, según se demanda hoy en día por las técnicas modernas de la guerra. Participaron exitosamente en misio nes de comandos, en misiones de transporte de tropas, en misiones de transporte de materiales, en misiones de salvataje, en misiones de guía de artillería, en misiones de reconocimiento, en misiones de transporte de heridos e inclusive en algunas misiones de combate.

Quedó demostrada entonces su total flexibilidad en todo tipo de condiciones habiendo demostrado un grado creciente en confiabilidad.

El helicóptero cumplió todas estas funciones en las MALVINAS en forma extraordinaria y además demostró ser una herramienta indispensable para el comando de las operaciones. Uno de los valores que también se pudo detectar en esta campaña fué la efectividad de los helicópteros en la detección antisubmarina y en el ataque a fuerzas de superficie; en este sentido la cobertura antisubmari na fué cumplido mediante larguísimas horas de vuelo por parte de los helicópteros. Posteriormente también se detectó la gran capacidad de apoyo a las operaciones anfibias por parte de los helicóp teros. Quedó a su cargo prácticamente todo el transporte tanto de equipos como de hombres entre los buques y la costa y el posterior apoyo al avance en tierra de las tropas inglesas. Los helicópteros facilitaron el desplazamiento de la artillería a través de diferen tes posiciones y también fueron los helicópteros los que permitieron el movimiento de tropas de infantería por sorpresa por sobre las líneas enemigas. En todo momento significaron también un apoyo psicológico al conflicto dado que se tenía certeza de su confiable

operación en el rescate de pilotos eyectados como así también la evacuación de heridos u otro personal herido o afectado en el conflicto.

A continuación se muestra un video tape de aproximadamente diez minutos de duración, en donde se ve todo tipo de operación de los helicópteros, el mismo fue tomado por la prensa inglesa así como también por cameramans aportados por la fábrica Westland. Las tomas son nítidas e incorporan sonido directo. Se ve en primera instancia los helicópteros depositados sobre superficies de portaaviones y de algunos barcos mercantes; en otras tomas se ven los barcos navegando con mar gruesa y poquísima visibilidad, en otras tomas se ve el desembarco en SAN CARLOS con proliferación de helicópteros, en una de ellas puede verse a 15 ó 20 helicópteros operando desde los barcos a la costa. En una de las tomas se vé inclusive a un avión argentino mientras los helicópteros tratan de bajar o esconderse entre los relieves de la superficie, pero en todo momento continuando con sus operaciones. Se ven helicópteros transportando cargas bastante pesadas suspendidas en redes. Se ve helicópteros transportando cargas paletizadas, se ve helicópteros transportando vehículos de ruedas. Hay tomas de un barco incendiado y como los helicópteros penetran en la masa de humo apoyándose sobre el barco y rescatando sobrevivientes; se ve otro helicóptero que mediante el empleo de la corriente de aire de sus aspas aleja tres o cuatro balsas salvavidas de la zona del incendio y para lo cual tuvo que penetrar en una masa de humo bastante importante.

Este video casette se pasó por lo menos tres o cuatro oportunidades diferentes durante la conferencia ya que inclusive en una secuencia nocturna se ve una gran explosión que la explosión de la

Fragata "Ardent". El helicóptero logró el momentum necesario a tra vés de toda la operación y muy especialmente en el desembarco en SAN CARLOS. En el primer día del desembarco hubo en operaciones aproximadamente 70 helicópteros que realizaron de 500 a 600 viajes entre los barcos y la costa llevando todo tipo de equipo y personal.

La gran versatilidad de los helicópteros se unió también a la decisión de sus pilotos, los cuales realizaron todo tipo de maniobras arriesgadas no solamente en el rápido rescate de pilotos eyectados, sino también en el rescate de los heridos en el barco "Sir Galahad", así como también el desembarco sobre navíos propios incendiados en el medio de explosiones de depósitos de municiones. Las fuerzas de sanidad también agradecen la presencia de los helicópteros ya que lograron rescatar a la mayoría de las víctimas en no más de media hora desde el momento de rescate hasta el momento de llegada a los buques sanitarios.

A criterio del disertante el uso del helicóptero en forma masiva por parte de los ingleses es uno de los elementos más concretos que se tuvo para socavar la moral de las tropas enemigas. Admite que durante las operaciones algunos helicópteros fueron llevados al límite de su capacidad lo que ocasionó algún accidente. El único helicóptero "Chinook" que quedó en condiciones de operar después del hundimiento del "Atlantic Conveyor" llegó a transportar en un solo vuelo 81 personas.

Menciona además que de haber tenido la totalidad de los cuatro "Chinook" enviados hubiese sido innecesario el desembarco en BAHIA AGRADABLE y se hubiese evitado el desastre que significó la pérdida del "Sir Galahad". De haber existido la capacidad planeada originalmente de helicópteros de gran porte, se hubiese utilizado los

mismos con mucha mayor protección y seguridad para las tropas de asalto.

Durante el conflicto se usó una gran variedad de helicópteros de la Westland como ser la siguiente: Sea King en modelos MK2 MK3 MK4 y MK5, Wesex en modelos MK3 y MK5 y Lynx en modelo MK2. Además se utilizaron helicópteros Wasp, Scout y Gazzelle. No se dieron cifras oficiales de cantidad de helicópteros llevados, durante la conferencia, pero en charlas de pasillos se confirmó que habían sido aproximadamente 100 y en todo caso no inferior a 70.

A criterio del disertante, la recuperación de las MALVINAS por parte de los ingleses estuvo caracterizada por dos puntos que solamente pueden cumplir los helicópteros y estos son rapidez e improvisación. Además la campaña de las MALVINAS deja en claro qué vulnerable puede ser una flota ante ataques submarinos, por lo tanto lo importante que ha sido la cobertura, la detección de actividades antisubmarinas por parte de los helicópteros. Por otro lado también como lección de las MALVINAS nos demos cuenta qué vulnerable puede ser una flota ante un ataque aéreo; en ese sentido él participa de la idea de incrementar la capacidad de alarma antiaérea temprana por parte de la flota, lo cual a su criterio puede ser realizada mediante el empleo de helicópteros.

Otra lección que ha quedado demostrado es qué fácil que es adaptar barcos no de guerra para operaciones con helicópteros. La campaña de las MALVINAS ha consagrado al helicóptero que en su versión naval o sea helicópteros navales, tuvieron diez mil salidas con aproximadamente 21.000 horas de vuelo. La confiabilidad de los helicópteros y su capacidad para mantenimiento quedó demostrada en que volaron como promedio 165 horas mencuales, contra lo que normalmente son 30 horas de vuelo.

El disertante cierra su alocución haciendo hincapié en los siguientes puntos generales:

- La indispensable preparación profesional de las FF.AA., condiciona su éxito.
- El apoyo político general es indispensable para cualquier tipo de operación militar.
- El personal y el equipo debe estar capacitado para solucionar todo tipo de contingencias y estar mentalmente preparado para lo imprevisto.

Acá termina la conferencia y se entró en un panel de preguntas con respecto al uso del helicóptero.

Pasa a hablar el panelista SAM COCKERHAM indicando que el único conocimiento que él tiene de la campaña de las MALVINAS es lo que se ha podido leer en los periódicos, pero recuerda que desde hace ya bastantes años, en el esquema estratégico de todo comandante el helicóptero cumple un papel preponderante. Este uso del helicóptero como una estrategia más lo observó en forma directa desde el año 1962 hasta 1972 en la campaña de VIETNAM donde se volaron más de 10 millones de horas con helicópteros.

El uso de los helicópteros durante la campaña fué masivo y sin restricciones, dado que se llegaron a perder durante ese período aproximadamente 4.600 helicópteros americanos; menciona esta cifra para demostrar simplemente el increible uso que se le dió a los helicópteros y no quiere que el auditorio piense que los helicópteros son frágiles. Los helicópteros ya no son frágiles, cada día son más fuertes y más robustos y por lo tanto más confiables. Desea convencer a la audiencia del gran avance de los helicópteros en muy poco período de tiempo desde los primeros que volaron en ALEMANIA en 1933 al desarrollo que se realizó de ellos

durante la Segunda Guerra Mundial, al advenimiento de las turbinas en los años 55, a lo que fué posteriormente su uso masivo en el VIETNAM.

Comprende que la cifra de horas mensuales de vuelo en la campaña de las MALVINAS fué realmente importante, ya que ellos durante la campaña del VIETNAM solamente en el caso de los "Chinook" llegaron a volar aproximadamente 180 horas mensuales.

Hoy en día el helicóptero le dá herramienta indispensable al comandante en tierra para moverse en todo tipo de terreno, a ras del suelo o solamente por encima de los árboles y ya sea con terreno pantanoso, nieve, arena, etc. y prácticamente en todo tipo de clima y aún con una restricción visual total.

Ultimamente inclusive se ha desarrollado con bastante capacidad el vuelo nocturno si bien todavía el mismo debe ser mejorado ya que los pilotos no tienen durante el vuelo nocturno la visión tridimensional que gozan con la luz del día; sin embargo piensa que esto es simplemente una mejora de tipo electrónico para que los pilotos durante un vuelo nocturno no tengan una visión plana, sino que también posean capacidad de visión periférica, lo cual otorga la sensación tridimensional para estas operaciones riesgosas.

Un participante realiza la siguiente pregunta:

- He escuchado en esta conferencia que la disponibilidad de helicópteros llegó al 100 %, siendo yo un hombre de infantería, me sorprende ya que muchas veces en momentos cruciales no se cuenta con el apoyo de helicópteros.

Respuesta: Efectivamente, yo coincido en parte con Vd.; sin embargo, uno de los comandantes de la flota me indicó que la disponibilidad de helicópteros fué de un 100 %. Yo creo que desde su punto

de vista es lógico pensar que no todos los comandantes en tierra hayan tenido la cantidad de helicópteros que ellos hubiesen deseado y en el momento oportuno. Piense Vd. que todavía las investigaciones no han concluído y no le puedo aportar cifras con respecto a disponibilidad técnica, pero sí le puedo indicar que es muy probable que por la necesidad de este tipo de máquinas generalmente los comandantes en tierra tienen mayor necesidad de las mismas de las que lógicamente podrían suministrárseles. Lo que sí quiero recalcar es el bajo grado de necesidad de mantenimiento durante la campaña de los helicópteros.

Fíjese Vd. que la mayor parte de los repuestos de la totalidad de la flota de helicópteros se fueron a pique conjuntamente con el hundimiento del "Atlantic Conveyor" y sin embargo la gran masa de helicópteros e inclusive el único "Chinook" disponible continuó volando horas y horas sin problemas serios de mantenimiento.

La situación creada obligó a modificar totalmente los planes de service regulares para mantenimiento de helicópteros e inclusive se realizaron operaciones de canibalismo o sea quitar los repuestos de unos helicópteros para poder colocarlos en otros.

Se producen varios diálogos con participantes de los cuales se pueden extraer lo siguiente:

- Existen todavía varias mejoras tecnológicas que se pueden realizar sobre los helicópteros, las cuales son muy sencillas y si hubiese existido una mayor comunicación entre la industria privada y los pilotos que se vieron enfrentados con situaciones de crisis, se hubiese podido rápidamente llegar a una solución y aún a bajo costo.

  Un ejemplo de esto es que aparentemente luego de muchos viajes desde los barcos hasta la costa desembarcando material, se producía algún problema de fatiga entre los pilotos a los cuales se

les achacó que algunas cargas no fueron posadas sobre la superficie, sino que por accidente cayeron desde unos 30 pies de altura provocando la rotura de la carga.

Un representante de la industria privada manifestó que eso podría solucionarse a bajísimo costo colocando un minisistema de radar o sonar de forma tal que el desenganche de la carga se hiciese en forma automática una vez que la misma tocase la superficie o a una distancia regulada de antemano y que por ejemplo dicho tipo de modificación es de mucho menor costo que el costo hoy en día que el caso de un piloto de helicóptero con todo su sistema de comunicaciones.

- Que los helicópteros hoy en día a diferencia de aquellos usados en la época de VIETNAM pueden por ejemplo resistir un impacto que produzca pérdida de lubricante en los rotores y continuar volando durante 20 minutos o media hora, cosa que no sucedía en la época de VIETNAM donde un impacto de estas características significaba el derribo inmediato de la máquina.
- Que alguno de los accidentes menores ocurridos podrían haber sido solucionados con mejor entrenamiento de los pilotos.
- Que en un desembarco anfibio masivo, si los helicópteros se encuentran afectados a tareas de logística, se presupone que tiene que haber una cobertura aérea real.
- Que muchos pilotos de helicópteros en ese tipo de situaciones o sea trabajando en el desembarco de equipos y personal desde barcos a tierra, solicitan que sus helicópteros sean armados con misiles aire-aire, ya que los pilotos se encontraban con que en más de una oportunidad estaban en óptimas condiciones para hacer su disparo sobre aviones enemigos; incluso de los misiles más simples y por lo tanto menos sofisticados como pueden ser los

buscadores de calor.

- En general todos coinciden que el helicóptero tiene que ser pensado como una realidad hoy en día y que es lógico que cualquiera sea su rol deberá estar equipado con alguna forma de misil ya que en un momento dado puede ser de suma utilidad.

Alguien pregunta si se sabe cual era el uso de helicópteros por parte de las tropas argentinas.

La contestación de uno de los participantes es que se tiene entendido que las tropas argentinas usaron en el desembarco inicial de las MALVINAS no más de 10 helicópteros; que incluso los argentinos disponían de "Chinook".

Se hizo un comentario de que las fuerzas inglesas fueron efectivas en la supresión temprana de helicópteros argentinos.

Alguien preguntó cuál era la cantidad de bajas de helicópteros ingleses, dado que los argentinos hablaban de una cantidad de 12 helicópteros ingleses abatidos.

No hubo una contestación precisa, indicándose que no se conocían en ese momento la cantidad de bajas de helicópteros, pero que por lo menos se tenía constancia de accidentes por parte de 3 helicópteros "Sea King". Uno de esos accidentes fué al tratar de despegar de un barco de apoyo con 18 comandos, precipitándose al mar con la pérdida total de los comandos y la tripulación. Luego existieron dos accidentes más de helicópteros "Sea King", pero la gente de Westland lo atribuye a excesos de maniobras por parte de los pilotos de estos helicópteros.

Se pregunta si los helicópteros ingleses realizaron operaciones nocturnas y cuál es el grado de desarrollo tecnológico para operaciones nocturnas con helicópteros.

Respuesta: Sí, efectivamente se efectuaron operaciones nocturnas

con helicópteros, pero hay que tener en claro que todavía el heli cóptero no tiene desarrollada la capacidad tecnológica suficiente para operar de noche de la misma manera que opera de día. Actualmente es posible operar los helicópteros de noche en vuelos de aproximación e inclusive por encima de la copa de los árboles, pero no se pueden realizar las maniobras que se realizan de día. Volvemos a insistir que de noche los visores y pantallas de televisión con que se cuenta dan una visión bidimensional y no tridimensional. Hasta tanto no se mejore la visual periférica o lateral de los pilotos de helicópteros no se estará en condiciones de operar los mismos de noche con la misma facilidad que se puede operar de día.-

OPERACIONES NAVALES: UNA VISION SOBRE EL CONO SUR

Disertante: Profesor Carlos López

El disertante indica que el título de la conferencia ha sido mal indicado ya que él no es un especialista en operaciones navales, sino que se va a referir a la problemática estratégica del cono sur.
El disertante Carlos López es profesor de Humanidades e Historia en el Memorial College de San Francisco, California, y es Académico de Historia en Chile.
Durante la conferencia se expusieron diversos mapas del Atlántico Sur y de toda Sudamérica en general.
Se menciona que hay diversas formas de clasificar el cono sur; ya sea a partir de la zona del Caribe hacia el sur, sea del Ecuador hacia el sur y que en su caso prefiere denominar así del Trópico de Capricornio hacia el sur.
Describe los países que se encuentran en esa zona indicando sus nombres y poblaciones.
El cono sur tiene tres situaciones estratégicas que resaltar. La primera es que al sur del mismo se encuentra el pasaje oceánico más importante que permite el tránsito desde el Océano Pacífico hacia el Atlántico o viceversa. La segunda es la cantidad de conflictos que se han desarrollado entre países del cono sur, sea por problemas fronterizos, o bien por apetencias sobre sus respectivas plataformas submarinas. El tercer punto a considerar es la cercanía de la Antártida, sus grandes riquezas económicas y puntos de importancia estratégica.
De los dos únicos pasos que existen actualmente entre los océanos Atlántico y Pacífico, uno de ellos es artificial y el otro es natural.
El paso artificial es el Canal de Panamá que tiene un gran peligro estratégico ya que puede ser deteriorado por sabotaje con mucha facilidad, amén de que existe la posibilidad que sea cerrado por razones políticas.
Desde que la administración del mismo está en manos panameñas el mantenimiento del Canal de Panamá es altamente deficiente. Por lo tanto

queda un solo paso natural entre ambos océanos, el que se encuentra al sur del cono sur. Existen tres pasajes para poder circular de un océano al otro: el Estrecho de Magallanes, el Estrecho de Beagle y el Pasaje Drake. Se mencionan las dificultades de paso que presenta tanto el Estrecho de Magallanes como el Estrecho de Beagle, los que se encuentran además en una zona de conflicto por los diferendos existentes entre Argentina y Chile. Por lo tanto el Pasaje de Drake se constituye en la vía más apta, de mejor navegación y en cierta forma con menor tensión en lo que se refiere a conflictos estratégicos zonales.

A continuación el disertante explica todo el conflicto del Beagle desde un punto de vista estrictamente chileno, llevando inclusive al auditorio a momentos de risa al ironizar las posiciones argentinas frente a las diferentes alternativas donde supuestamente el Canal de Beagle pasaría dejando unas islas del lado argentino o del lado chileno. Esta explicación se desarrolla con bastante material de fotos y diapositivas de tipo panorámico y en general la alocución del profesor Carlos López tuvo un gran grado de credibilidad para el tipo de audiencia presente en esa reunión.

Menciona que el pasaje de buques entre los océanos a través de estas vías se ha incrementado mucho en los últimos años. Por ejemplo en 1974 se detectó el pasaje de 245 buques mientras que en 1981 se detectaron más de 1.100. No solamente ha aumentado la cantidad de buques que cruzaron de océano a océano sino también el tonelaje de los mismos. Indica que la zona del Beagle es una zona de conflicto latente. A su criterio la primera lección del conflicto de las Malvinas es que la "Pax americana" ha desaparecido y quizás para siempre.

La segunda lección que todo el mundo debe tener en cuenta a raíz de este conflicto es que los Estados Unidos tienen poco interés sobre ciertas zonas del cono sur. A su criterio el interés principal continental de los Estados Unidos es su vecino inmediato Mexico, la zona del Caribe donde la penetración soviética es ya hoy en día una amenaza concreta en las barbas de los Estados Unidos, y recién, muy dis-

tanciada en el tiempo y en las prioridades, la región del cono sur, incluyendo la zona donde se desarrolló el último conflicto.

El profesor Carlos LOPEZ explica los diferentes sectores antárticos, tanto de la Argentina como de Chile; se muestran mapas sobre esta situación y por supuesto menciona que las aspiraciones de ambos países se superponen en un extenso territorio. Al describir la situación de la Antártida menciona las diferentes bases de países como Argentina, Chile, Estados Unidos y Rusia; en el caso específico de las bases rusas muestra un slide de una de ellas explicando que en la foto no pudieron incluirse los enormes tanques de combustible que tienen los rusos en la Antártida. En esa base específicamente había capacidad para 1,5 millones de galones de combustible de reserva. Estas bases rusas, con enorme cantidad de combustible de reserva, estan siendo usadas no solamente para su flota pesquera que suele abastecerse en la Antártida sino esencialmente para todo tipo de buques y especialmente submarinos rusos que normalmente realizan su reabastecimiento en la Antártida.

Explica algunos otros conflictos en la zona del cono sur, diciendo que luego de mucho tiempo las relaciones entre Chile y Perú son óptimas en estos momentos. A continuación explica, desde el punto de vista chileno, el conflicto chileno-boliviano por la pretensión de Bolivia de buscar una salida al mar. El disertante ironiza el punto de vista boliviano aduciendo que muchos de los problemas sociales y económicos de Bolivia derivan de la falta de una salida al mar. El disertante no sabe hasta que punto un país que ha tenido en los últimos decenios casi 100 golpes militares puede cambiar su actitud simplemente por el hecho de contar con una salida al mar.

En lo que se refiere a posibles conflictos en esta zona, se indica que no se prevé ningún tipo de conflicto marítimo ya que entre otras cosas Bolivia no dispone de una marina, si bien posee un barco mercante, y que a pesar de que cuenta con diversos Almirantes no cree que exista un conflicto marítimo (estos comentarios provocan risa en la audiencia).

A continuación describe otro conflicto que a su entender proviene de la escuela geopolítica argentina; anuncia a la audiencia que ha encontrado documentación en donde se demuestra que la Argentina ha inventado una nueva área geopolítica llamada Atlántártida y que la misma estaría constituida por toda la zona este de América Latina, el continente antártico y la zona oeste de Africa y por supuesto toda la masa de océanos que compromete a esa zona. Por supuesto dentro de la Atlántártida se encuentran las islas Malvinas y, a criterio de geopolíticos argentinos, en esta gran masa se va a comprometer el futuro de la Argentina en el siglo XXI.

A juicio del disertante, los conflictos en esta zona se van a desarrollar sin solución de continuidad en el futuro; por un lado la Argentina ha demostrado su interés en la Antártida con la posesión de bases en la misma desde hace muchos años atrás, y recientemente, con el conflicto de las Malvinas. Indica que hay un país que realmente no puede aceptar esta tesitura de la Argentina y ese país es Brasil. Brasil no puede aceptar que Argentina pretenda que la Atlántártida sea su futuro Marenostrum. Por otro lado Brasil propugna la proyección de las costas de los países sudamericanos sobre las costas de la Antártida. De esa manera Brasil, y según el disertante esta es una expresión de un Almirante Brasileño, siendo el poseedor de la mayor extensión de costas atlánticas en América del Sur tiene derechos inalienables y directos sobre la Antártida. Sin embargo reconoce que una de las mejores soluciones para conflictos fronterizos fue encontrado por Argentina y Uruguay en la división del Rio de la Plata, para uso común de áreas de pesca.

Menciona que además existen otros conflictos geopolíticos a desarrollarse entre Argentina y Brasil, ya que los recursos hídricos de la cuenca del Paraná son motivo de preocupación por ambos países y asimismo los dos países ambicionan las reservas minerales de Bolivia. Ante la decreciente influencia de EE.UU. sobre el cono sur, el equilibrio de poderes entre Brasil y Argentina es de características estratégicas. Cualquier tipo de conflicto armado que se produzca aun

pequeño, entre la Argentina y Brasil, no solamente va a tener influencia en la zona colchón, llámese Bolivia, Paraguay y Uruguay, sino que también va a tener repercusiones inmediatas en países como Chile, Perú y Ecuador. Asimismo hay que tener en cuenta que ante el avance de la tecnología nuclear de Brasil y Argentina y especialmente Argentina, un conflicto armado en el futuro puede tener implicancias que despierten la atención universal.

En este momento Brasil lidera su carrera bélica con Argentina ya que esta, luego del conflicto de las Malvinas, se encuentra en peores condiciones que aquel. Sin que esto constituya un vaticinio, el disertante menciona que cualquier pequeño conflicto entre los países líderes de América del Sur, Brasil y Argentina, se puede convertir rápidamente en los años 80 en un conflicto de gran escala en Latinoamérica. Sin embargo hay que mirar hacia el futuro; el futuro se presenta con la confirmación de una menor intervención y preocupación de Estados Unidos por los países del cono sur. Ningún estadista de la zona sur de Latinoamérica comprende cabalmente por que Estados Unidos tomó la decisión conocida con respecto al conflicto de las Malvinas; muchos de ellos todavía creen que existe una preponderancia del mundo anglosajón sobre el mundo latino; algunos inclusive incursionan en la parte histórica, recordando los conflictos entre España e Inglaterra; sin embargo la realidad es que muy pocos creen que Estados Unidos tomó esa decisión simplemente porque pensaba que era la más justa.

Sin embargo, en las últimas semanas ha detectado una actitud un poco más interesada de los Estados Unidos hacia los países del cono sur, en momentos que se celebrara una conferencia en Santiago de Chile a la cual concurrieron especialistas de seguridad de los Estados Unidos que manifestaron que ese país necesitaba algún tipo de relación duradera con alguno de los países o quizás todos los países del cono sur; preconiza, por lo tanto, que puede existir un mayor interés de EE.UU. en acercarse a los países del cono sur de América.

Es innegable que el conflicto del Atlántico Sur ha abierto los ojos

a los EE.UU., así como a Inglaterra. En el caso concreto de Inglaterra quizás lo que exista el día de mañana sean mejores relaciones con Chile, ya que Chile pasa a ser su aliado natural en el cono sur. Mirando el futuro, a largo plazo es posible que se creen organizaciones estratégicas para el Atlántico Sur; la primera de ellas sería una posible SATO o sea una SOUTH ATLANTIC TREATY ORGANIZATION, una entidad similar a la NATO que tenga en cuenta a todos los países de la costa del Atlántico, ya sea de América del Sur, del Africa, además de la presencia de naciones del mundo occidental como Estados Unidos e Inglaterra. La participación de EE.UU. es fundamental, ya que es la única nación que mantiene flotas en ambos océanos y además el Pasaje Drake es fundamental para el tránsito de ellas entre los dos océanos.

Esta idea de la SATO no es nueva y en ese sentido, el disertante aprecia que ha habido una mayor cantidad de contactos entre la Marina Argentina y la de Sudáfrica. Sin embargo a su criterio y a largo plazo, quizás la única solución posible sea no ya la SATO sino la SOTO que sería la SOUTH OCEANS TREATY ORGANIZATION, una Organización o Tratado que ya no sólo incluiría los países mencionados anteriormente, sino también los países de la costa del Pacífico, de Latinoamérica, así como también a Nueva Zelandia y Australia.

En el futuro, la preocupación ya no serán las aguas que rodean el casquete polar ártico, sino también la concertación de tratados sobre el control de los océanos que rodean el casquete polar antártico.

Aquí concluye la conferencia del profesor Carlos LOPEZ y hubo algunas preguntas por parte de miembros del auditorio que a continuación referimos:

- El Miembro del Parlamento Sir Patrick WALL expresó que le parecía muy interesante la posibilidad de tratados que uniesen a los diferentes países, por ejemplo del Atlántico Sur o de los océanos del sur, y que en última instancia él creía viable en el futuro que el pueblo argentino pudiera estar de acuerdo en que Inglaterra también se plegase a ese tipo de organizaciones.
- El Profesor LOPEZ contesta que sí, que él también considera que en

un futuro es la única forma viable, pero que el señor WALL no se debe engañar con respecto a los sentimientos del pueblo argentino hacia Inglaterra. Menciona que él fue educado en un colegio de origen inglés en la Argentina y que el proceso de lavado de cerebro al que fue sometida la mayoría del pueblo argentino; desde la época de PERON se intensificó una campaña de este tipo a fin de concientizar a todo el mundo sobre los derechos argentinos en las Malvinas.

- Sir Patrick WALL amplía su pregunta diciendo hasta que punto el hecho de que en un futuro tratado para el Atlántico Sur se incorporase a Sudáfrica, no sería mal visto por países de América Latina, ya que esa incorporación, por ejemplo, podría ser mal vista por países de Europa.

- El Profesor LOPEZ contesta que no, que la incorporación de SUdáfrica a un tratado de este tipo no necesariamente tiene que ser mal vista y le recuerda que Sudáfrica ha mantenido muy buenas relaciones con países latinoamericanos, inclusive cuando hubo por parte del Presidente CARTER una campaña concreta en contra de Latinoamérica, Sudáfrica fue quizás una de las pocas naciones que se acercaron abriendo Embajadas en distintos países. Existe una importante Embajada de Sudáfrica en la Argentina y muy buenos contactos entre sus dos marinas; asimismo, existe una muy buena relación diplomática entre Chile y Sudáfrica.

- Otro miembro de la concurrencia menciona que en ese SOTO a crearse habría que pensar en la incorporación de Arabia Saudita ya que a través de los mares de ese tratado pasa la mayor parte de su producción de petróleo.

- Otro participante realiza la siguiente pregunta: ¿ Cual es su criterio, sobre la factibilidad de que se realice a corto plazo un tratado, ya sea el SATO o el SOTO?

- El Profesor LOPEZ explica que hay una condición sine-quanon que debe ser superada primero y es el conflicto entre Argentina y Chile. Si fuese por la Iglesia Argentina, este conflicto podría terminar el día de mañana, pero sin embargo es probable que el conflicto entre

Argentina y Chile deba esperar por lo menos a que haya Congreso o Cámaras Legislativas y elecciones quizás en Argentina, para que tenga validez algún tipo de acuerdo.

En última instancia estos dos países son muy parecidos, sus poblaciones son muy similares y lógicamente deberían llegar a un acuerdo total, a un tipo de tratado que les permita la mutua defensa de sus intereses en la zona del Atlántico Sur. Menciona que hace muchos años atrás una alianza entre Argentina y Chile permitió que la Marina chilena embarcase tropas argentinas para continuar la liberación de pueblos como el peruano, liberándolos del dominic español. Por lo tanto la condición inicial necesaria es el acuerdo entre Argentina y Chile, y el aspira a que ambas naciones puedan llegar a un acuerdo tal, y a un grado de entendimiento en que se den cuenta que la lucha por sus cuestiones fronterizas es menos importante que luchar para defenderse de posibles acciones externas sobre el mar que los rodea.

MISILES CONTRA BUQUES: UNA AMENAZA MADURA

Conferencista: Mayor General Ken PERKINS.

Hace una breve introducción histórica con respecto a los misiles contra buques (Ship to Ship - SSM). Hoy en día hay aproximadamente 63 marinas de guerra en el mundo que disponen de algún tipo de misil buque-buque. El antecedente histórico en la 2da. guerra mundial eran los aviones Kamikaze, pero como hoy en día hay una carencia mundial de este tipo de armas Kamikazes, se ha recurrido a los misiles (risas por parte del auditorio).

Con el avance de la tecnología estos misiles pueden atacar el buque desde cualquier ángulo, desde la superficie del agua e inclusive venir desde las alturas (Diving Missiles).

Durante la campaña de las Malvinas entraron en operación varios sistemas SSM siendo los más usados los misiles Sea Skiammer (Misiles que van a ras del agua). En líneas generales se puede decir que los misiles Sea Skiammer son más fáciles de desviar que los Diving Missiles que llegan hacia el blanco en un ángulo muy agudo y a altísimas velocidades, prácticamente supersónicas.

El primer misil antibuque disparado en la campaña de las Malvinas fue el Sea Skua, en este caso portado por helicópteros; es un misil que se desprende del helicóptero, baja hasta el nivel del agua y busca su objetivo. El Sea Skua es un misil recientemente introducido en la fuerza naval inglesa y por lo tanto novedoso en su condición operativa. Se dispararon en total 7 misiles, los cuales detectan 7 blancos, con un barco hundido y 6 buques seriamente dañados como consecuencia. El buque hundido por un misil Sea Skua era una pequeña unidad de patrulla.

Los otros misiles antibuques que se usaron en la campaña de las Malvinas fueron los Exocet, que estaban en manos de las fuerzas argentinas y que los ingleses desconocían que los mismos estuviesen operativos en el momento del conflicto. El hundimiento más comentado fue el del Sheffield, que se encontraba sin protección de radar al

ser blanco de un Exocet.

Este disertante menciona que el Exocet que dió en el Sheffield no detonó; sin embargo, el combustible residual que quedaba en el misil provocó un incendio de tal magnitud que ocasionó la pérdida final del buque. De los otros Exocet que fueron disparados durante el conflicto, uno de ellos fue preparado por las fuerzas argentinas para ser lanzado desde tierra haciendo impacto sobre el Glamourgan que trató de esquivarlo logrando que el proyectil no pegara de lleno sobre el buque sin- sobre su hangar de helicópteros, destruyendo el mismo así como la cubierta para helicópteros.

Otro Exocet que inicialmente había sido dirigido contra la fragata Yarmouth fue desviado con éxito por ésta, pero lamentablemente el misil hundió el Atlantic Conveyor. (durante esta parte de la exposición se muestran fotos con helicópteros portando y disparando Sea Skua así como una foto donde se ve suelo de las Malvinas, en las calles de Puerto Stanley donde hay un trailer que tiene puesto encima de él dos containers y se hace referencia a que esos son los Exocet, uno de los cuales fue disparado desde tierra contra el Glamourgan). Según este disertante, la Marina Argentina disparó 6 Exocet. Señala que durante la campaña la Marina inglesa no disparó ningún Sea Wolf; indica que no se dispararon por falta de oportunidad y que realmente fue una pena, ya que la efectividad de los mismos se entiende que es muy importante. Destaca que el Sea Wolf es un arma totalmente automática, ya que hoy en día el avance de misiles a altas velocidades impide una defensa donde intervenga algún dispositivo de tipo manual. También destaca la importancia del lanzamiento vertical.

Resalta la importancia de la alarma temprana y menciona nuevamente que una vez que el proyectil se encuentra a distancia del horizonte todo queda en manos de la capacidad de defensa puntual del buque objetivo. Menciona que en la campaña de las islas Malvinas fueron muy usados los chaff y con bastante efectividad, no solamente los chaff tirados desde buques, sino también lanzados desde helicópteros.

El último recurso en la defensa puntual se convierte entonces en los sistemas de misil antimisil. La mayoría de estos han sido desarrollados a partir de sistemas de armamentos diseñados inicialmente para ataques a buques o sea sistemas buque-buque.

El sistema antimisil debe tener algunas características principales como por ejemplo, poder ser dirigido contra un ataque que provenga de cualquier dirección.

El orador destaca la ventaja de los sistemas antimisiles de lanzamiento vertical, los que supuestamente requieren menor instalación, son más baratos y más faciles de operar. Estos sistemas antimisil deben estar capacitados para dispararse sobre un blanco que puede estar sobre la superficie del agua, a gran altura, o misiles atacantes que difieren mucho entre sí en lo que se refiere a velocidad.

Finalmente, quedan como recurso de la defensa puntual, las baterías de cañones y ametralladoras, pero aún suponiendo que una bala de cañón o de ametralladora pudiera tocar un misil a cientos de metros de distancia del buque, hay una posibilidad de que continúe su curso haciendo impacto.

En lo que se refiere a la falta de un Exocet del tipo aire-superficie en las fuerzas inglesas, el disertante menciona que se encuentra en desarrollo el Sea Eagle, misil para ser colocado aproximadamente dentro de dos años sobre los Sea Harrier. Estos misiles serán del tipo inteligente, teniendo posibilidad de programar la elección de su blanco.

Al concluir esta conferencia, se realizó un panel de preguntas donde nuevamente se produjeron intercambios de opiniones entre los fabricantes de misiles y los fabricantes de cañones.

El punto de vista de los fabricantes de cañones es que los cañones de tiro muy rápido, con su correspondiente sistema de radar, deberían proveer una cortina bastante importante de defensa puntual ante misiles que avanzan hacia su objetivo. Por otro lado las personas que opinan de forma diferente indican que en la medida en que

los misiles avanzan tecnologicamente, ganan velocidad y tienen inteligencia como para variar su curso en forma automática en la medida que se acercan al blanco, y por ende los sistemas de cañones serían ineficaces para contrarrestarlos.

Se mencionó que falta aún desarrollar la tecnología para misiles antimisiles, sobre todo aquellos que puedan ser de lanzamiento vertical y de fácil colocación sobre cualquier tipo de buque.

El coordinador del panel terminó el mismo indicando que, sin dejarse llevar por la pasión de las discusiones entre cañones y misiles, desea recordar que el mejor sistema es aquel que implementa tres elementos básicos, a saber: un buen sistema de desvío, un buen sistema de misil antimisil y por supuesto un buen sistema de tiro rápido con radar.

"LECCIONES DEL CONFLICTO DEL ATLANTICO SUR". LONDRES 2/3-9-82.

CONCLUSIONES

Conclusiones leídas por el organizador del Seminario, señor GREGORY COPLEY.

La primera observación que hace es que los organizadores del Seminario pensaron seriamente si este era el momento oportuno para realizar una conferencia de este tipo, ya que no se tiene todavía información, aunque sea extraoficial, desde el punto de vista argentino. Sin embargo, habiendo tenido en cuenta este punto, decidieron que igual era necesario realizar una conferencia en este momento, ya que por lo menos existía bastante caudal de información "fresca", mientras que el tiempo tiende en muchos casos a hacer olvidar ciertos aspectos importantes.

Al entrar a referirse a las conclusiones o lecciones que ha dado el conflicto del Atlántico Sur, el señor COPLEY hace un agradecimiento especial a los produtores de armamentos, ya que mucha de la información ha sido provista a través de ellos. Mencionó que si bien se había preocupado por obtener información desde el lado argentino, la misma todavía no estaba disponible. Sin embargo tienen el conocimiento de que, un tema del cual en el Seminario no se había hablado, existió; ese tema es la activa participación de submarinos argentinos, los cuales inclusive habían estado en condiciones de lanzar varios torpedos. Por otro lado se sabe que la Marina Argentina está haciendo investigaciones que aparentemente indicarían la falla total o parcial del activamiento de esos torpedos. En consecuencia serían muchas las conclusiones que se podrían sacar, si realmente ese dato fuese cierto y si realmente esos torpedos hubiesen llegado y explotado, las circunstancias durante el conflicto podrían haber variado substancialmente.

Por otra parte hay que reconocer que el ingrediente político en este conflicto fue absolutamente importante. El juego político interno de las FF.AA. Argentinas, así como el Gobierno representado en la Junta Militar fue realmente un factor preponderante en el desencadenamiento de este conflicto.

Es evidente que si las FF.AA. Argentinas hubiesen estado mejor armadas y con mejor entrenamiento quizás el daño inflijido sobre las fuerzas inglesas hubiese sido diez veces mayor. Sin embargo, luego del conflicto no se ve que la circunstancia principal haya cambiado fundamentalmente. Esto es que los ingleses parecen estar menos decididos que nunca a devolver Las Malvinas y por otro lado no parece claro que los argentinos tengan posibilidades en un futuro inmediato de recuperar las mismas.

Por otro lado, existen evidencias claras de fuertes presiones políticas y económicas por parte de Inglaterra hacia Argentina.

Quedó claro durante estos dos días de conferencia la importancia estratégica de los helicópteros a los cuales se augura un crecimiento importante en cuanto al uso de los mismos y su perfeccionamiento.

Quedó demostrado claramente que no existió superioridad aéres definitoria por parte de ninguno de los dos bandos, sin embargo durante la primera parte del conflicto, era parcialmente evidente una ligera superioridad aérea por parte de los argentinos.

Asimismo no queda claro el uso o eficiencia de los Roland por parte de las fuerzas argentinas, si bien existe información de que el problema mayor en el uso de los mismos fue la falta de entrenamiento y en última instancia, la falta de repuestos.

Otro punto que quedó claramente establecido son las serias deficiencias de una fuerza de conscriptos. Evidentemente, conflictos de este tipo se ven negativamente afectados por el uso de una fuerza de conscriptos, donde lógicamente, tienen pocas chances ante fuerzas profesionales. Evidentemente las fuerzas profesionales han demostrado que pueden marchar con carga completa aproximadamente cincuenta millas y luego poder entrar en combate.

Durante el conflicto se demostró la utilidad de todo tipo de sistemas de engaño de misiles. Estos sistemas deberán ser substancialmente mejorados con el tiempo ya que probaron ser de bastante efectividad y de bajo costo.

Asimismo se ha hecho bastante hincapié durante la conferencia sobre la

capacidad relativa que han demostrado los navíos para poder soportar el impacto de misiles, especialmente por fuego producido a bordo luego del impacto. Son varios los especialistas que han mencionado las diferentes alternativas que hay para mejorar este diseño y para mejorar especialmente el uso de materiales en la construcción de buques.

La falta de Alarma Antiaérea Temprana fue un factor decisivo en las operaciones inglesas; esta falta de alarma temprana era conocida desde que la flota zarpó de Inglaterra. Y la mayoría de las acciones argentinas sobre la flota inglesa pudieron ser posibles por la falencia y grave deficiencia en lo que se refiere a alarma antiaérea temprana. Todo parece indicar que esta falencia era común a ambas partes en conflicto.

Este conflicto también demostró la enorme utilidad de los misiles, en general de todo tipo de misiles; especialmente los panelistas avizoraron un futuro inmediato en donde versiones containerizadas de misiles superficie-aire serán usados masivamente a bajo costo, inclusive para equipar barcos mercantes.

La proliferación mundial de armamentos producidos por el hemisferio occidental demuestra que se está en presencia de posibilidades de conflictos en donde armamentos similares realmente del mismo proveedor se vean confrontados, en donde prevalecerá el entrenamiento y la posibilidad de reposición de los mismos.

Otra de las conclusiones de esta conferencia es la interesante situación en que se encuentran aquellos países que pueden rápidamente disponer e inclusive tienen los medios legales para disponer de su flota mercante. Está en la estrategia nacional de cada país desarrollar las posibilidades técnicas y legales para poder tener acceso rápido y concreto a su marina mercante.

Asimismo se hace hincapié en la necesidad de desarrollar sistemas para proveer a la mayoría de los aviones de la capacidad de lanzar bombas sobre coordenadas prefijadas electronicamente en vez de dejar esta alternativa en manos de la tripulación de los aviones

El conflicto también ha demostrado que las viejas bombas de hierro todavía pueden ser efectivas y devastadoras; sin embargo tambien se ha demostrado la dificultad e incapacidad para adaptar la detonación de las mis

mas a las diversas circunstancias que significa el ataque sobre blancos de superestructura más liviana o especialmente también el ataque sobre blancos, volando a baja altura.
También el conflicto ha demostrado que la cobertura de la información mediante los medios periodísticos se convierte en otra herramienta de importancia decisiva.
Esto lleva a pensar que la cobertura desde el punto de vista periodístico puede ser planeada prácticamente como cualquier otro de los sistemas que intervienen en un conflicto.
También se ha demostrado la importancia de Fuerzas de Despliegue Rápido.
También ha demostrado este conflicto la necesidad de mejorar los sistemas de inteligencia estratégica, ya que por lo menos para una de las dos partes contendientes el acontecimiento fue una sorpresa total.
Para la otra parte contendiente hubo grandes fallas de inteligencia estratégica en el sentido de no poder vaticinar la actitud y determinación por parte del enemigo.
Durante la conferencia quedó evidenciada la absoluta necesidad de poder operar bajo todo tiempo desde el punto de vista climático; esto fue demostrado claramente en su capacidad para trabajar en todo tiempo por parte de las fuerzas inglesas, mientras que por otro lado las fuerzas aéreas argentinas demostraron su incapacidad total para la operación nocturna y restringida en condiciones climáticas adversas.
La incapacidad de reabastecimiento de combustible durante el vuelo ha sido claramente demostrada por ambas partes; con diferencias circunstanciales, ambos contendientes sufrieron duramente de su incapacidad para el reabastecimiento en vuelo.
El reabastecimiento aéreo probó ser un serio problema para los aviones ingleses que debieron cubrir enormes distancias hasta los blancos, no solamente aquellos que provenían de la isla de Ascensión, sino aquellos que inclusive incursionaron desde la flota.
Desde el punto de vista argentino la falta de buques suplementarios descartables probó ser absolutamente crítica.
Desde el punto de vista estratégico, Argentina tampoco pudo superar su

aislacionismo en el sentido le su incapacidad para poder reaprovisionarse correctamente de material y repuestos durante el conflicto. Este último punto trae a colación la importancia estratégica que significa la industria nacional en el esfuerzo de guerra.

Se notó una clara diferencia entre lo que es la capacidad y celeridad de reacción de la industria inglesa de armamentos y equipos en lo que se refiere a este conflicto y en contraposición la debilidad del planeamiento industrial por parte de Argentina, en el sentido de no contar con piezas fundamentales, como por ejemplo los tanques suplementarios descartables de fabricación local.

El conflicto ha reavivado y despertado un interés primordial sobre toda la región del Atlántico Sur y por encima de ello, todos los mares que rodean el casquete polar antártico.

Diversas opiniones geopolíticas que se expresaron durante la conferencia nos han explicado como esta zona asume una prioridad muy importante, avanzando en cierta forma en el tiempo.

El conflicto también demostró la importancia de los submarinos nucleares, ya que los mismos estuvieron capacitados como para poder bloquear efectivamente los esfuerzos de la Marina Argentina.

Ambas partes demostraron bastante incapacidad para manejar apropiadamente su prensa. La instrumentación de los medios de información por ambas partes estuvo en muchos casos librada al azar y no existía una planificación previa con respecto a la actuación y uso de las mismas.

El señor COPLEY termina su síntesis expresando que agradece particularmente a todos los delegados presentes en esta conferencia, sobre todo a aquellos que tuvieron que viajar largas distancias para poder acompañarnos.

Asimismo indica que las lecciones sobre el conflicto del Atlántico Sur son muchas más de las que él ha expuesto y espera que con la contribución de todos este conflicto sea aclarado aún más.

RELEVAMIENTO ESTRATEGICO INICIAL DE LAS FUERZAS ARGENTINAS *

El director de la conferencia, señor Gregory COPLEY, leyó a continuación un informe fuera de programa explicando que en el afán de los organizadores de poder balancear la presente conferencia con un punto de vista argentino, dá lectura a continuación a un papel que resume la información que se pudo conseguir extraoficialmente de las Fuerzas Argentinas y en especial de la Fuerza Aérea.
Hace hincapié en que esta información si bien es extraoficial, fue cotejada por ellos con versiones de distintas fuentes, de manera tal que lo que se expresará tiene un cierto grado de credibilidad.
Las Fuerzas Argentinas tuvieron la primera oportunidad para evaluar las Fuerzas Inglesas, solamente cuando la Fuerza de Tareas se congregó en las cercanías de las islas Malvinas. Hasta ese momento , aparentemente, el empleo del Poder Aéreo de la Argentina, sobre la zona de las Malvinas no había sido estudiado en profundidad.
Esta posibilidad debe ser seriamente tenida en cuenta ya que existen versiones convergentes que indican que la intención estratégica de la Argentina era realizar la ocupación para luego negociar la desocupación de las islas, sin intención de un conflicto abierto. Esta tesitura se la atribuye a la Junta gobernante en la Argentina, la cual por razones todavía no conocidas, aparentemente cambió de idea una vez producida la ocupación argentina de las islas.
El hecho concreto es entonces que la Fuerza Aérea solamente consideró una posibilidad seria de conflicto abierto con Inglaterra una vez que la misma mostró su total determinación militar.
La primera conclusión realizada por la Fuerza Aérea Argentina es que no había ninguna posibilidad de mantener la superioridad aérea una vez que el conflicto tuviese una escalada militar. Aún en el caso de que Argentina pudiese mantener en operaciones 81 de sus 225 aviones.
El 50% de estos 81 aviones estaba compuesto por Mirage III, Mirage

V, Dagger y bombarderos Camberra, a los que hay que agregar la Aviación Naval compuesta por Skyhawk, Aeromacchi, así como los Super Etendard que mostraron ser altamente eficaces en este conflicto. También disponían de A4C y A4B, la mayoría de ellos capaces de ser reabastecidos en vuelo y existían dos aviones tanques, lo cual permitió el ataque sobre las islas desde cualquiera de los puntos cardinales. Todos los Super Etendard tenían capacidad para reabastecimiento en el aire, lo cual se demostró también de altísima utilidad.

Los Mirage III y V tenían una extraordinaria limitación de combustible, los cuales, aún con tanques suplementarios, tenían solamente capacidad para un pasaje sobre las islas. Según fuentes de la Fuerza Aérea Argentina, los Mirage eludieron el combate aéreo en todas las oportunidades debido a la importante limitación de autonomía.

Aún en el caso de verse obligados a enfrentamientos aéreos, los pilotos argentinos se veían precisados a tirar previamente sus tanques de combustible, lo cual les impedía el regreso a tierra. Sin embargo varios pilotos argentinos eligieron este sistema realizando enfrentamientos o ataques y posteriormente, al no poder regresar a tierra, decidir su eyección; se indica que por lo menos dos pilotos realizaron esta riesgosa operación.

Uno de los problemas más acuciantes, quizás el más grave de todos los que enfrentó la Fuerza Aérea Argentina, fue el de no poder comprar durante el conflicto tanques suplementarios descartables.

Aunque parezca sorprendente, la industria aeronaútica, tiene cierto desarrollo, pero sin embargo nunca fue implementada la construcción local de este tipo de tanque.

Este punto tiende a confirmar la idea de que durante el conflicto el reaprovisionamiento de armas y equipos fue altamente dificultoso para la Argentina, especialmente de sus proveedores originales. Es muy factible que países como Perú, Israel o Sudáfrica hubiesen podido suministrar estos tanques, sin embargo la situación no lo

hizo posible.

Fuentes informales de la Fuerza Aérea Argentina también dijeron que la mayoría de las salidas de los Mirage fue en vuelos a alta cota (unos 19.000 pies) y en trayectoria recta, debido a los problemas de autonomía; dichos vuelos eran orientados por el único radar existente en las Islas Malvinas. Por otro lado, los aviones argentinos se mantenían en silencio de radio hasta entrar en combate o en zonas de ataque, en contraposición con la fluida comunicación existente entre las propias escuadrillas de Harrier y los barcos de la Fuerza de Tareas.

Se puede concluir a este respecto que la aviación inglesa tuvo mejor control y guiado que la Argentina. La misma fuente indicó que a criterio de ellos los ingleses hubiesen perdido gran parte de su capacidad si no hubiesen contado con el aprovisionamiento de combustible por parte de EE.UU.

La Fuerza Aérea Argentina vió limitadas sus posibilidades también por la existencia de solamente dos aviones tanque y además la necesidad de hacer maniobras de reaprovisionamiento a muy alta altura para poder evadir la acción de los radares ingleses. Asimismo fallas de material o impactos provocados por armas menores causaron una mayor cantidad que el promedio lógico de reabastecimiento en el aire de los aviones argentinos. Incluso se cuenta la anécdota de un avión que debió ser reabastecido constantemente en su vuelo hacia tierra firme dadas las pérdidas por impactos que tenía.

Los pilotos argentinos notaron un fuerte incremento de las defensas antiaéreas inglesas a partir del desembarco en San Carlos, la presencia de cantidades importantes de Blowpipe, así como los Rapier, hacían a juicio de los argentinos, la situación insostenible.

En contactos personales que refiere el señor COPLEY dice que los pilotos argentinos mencionan que las mejores armas desde el punto de vista de ellos, eran los Rapier y los Blowpipe; asimismo, tenían un gran respeto hacia los Harrier, elogiando su capacidad de maniobra en el aire. Por otro lado los Sea Dart de los barcos in-

gleses no eran considerados como un peligro importante; sin embargo esos pilotos se demostraron preocupados con respecto a los Sea Wolf que podían encontrar en el mar. El relator entiende que puede haber una equivocación por parte de las fuerzas argentinas o sea que pueden haber atribuido algunas bajas a los Sea Wolf mientras que realmente pueden haber sido misiles Sea Dart.

Asimismo indicó la existencia de mala información con respecto a los ataques sobre la pista de Puerto Stanley. Las fuerzas argentinas indican que a pesar de los inmensos y continuados bombardeos no solamente por parte de los Harriers y Sea Harriers, sino también de los Vulcan, la pista nunca sufrió más que daños menores, siendo operable durante todo el conflicto y hasta inclusive el último día, tal es así que se menciona que el último vuelo de Hércules salió de la pista el día 14 de junio a las 3 de la tarde. Por otro lado fotos aéreas tomadas por fuerzas inglesas sí indicaba algunos daños sobre la pista.

Se entiende que el comandante argentino a cargo de la pista de aviación logró pintar y simular algunos impactos directos sobre la pista con posterioridad a los raids de los Vulcan, de forma tal de confundir los relevamientos fotográficos tomados por los ingleses. Todo parece indicar que durante todo el conflicto la pista no haya recibido ningún impacto directo; esto es atribuible en parte a la pobre puntería o precisión en el bombardeo por parte de los Harriers ingleses y además la falla en explotar de algunas bombas que inclusive luego fueron encontradas en proximidades de la pista por tropas inglesas con posterioridad al 14 de junio.

Si bien existe consenso general sobre la mala distribución y mal uso del armamento en tierra por parte de las tropas argentinas, la Fuerza Aérea hace especial hincapié sobre la eficiencia de transporte que pudo mantener durante todo el conflicto. Indica en ese sentido que desde el 1 de mayo llevó 435 toneladas de carga hacia las islas y pudo evacuar 264 heridos. Por otro lado los Hércules, inclusive aviones tanque volaron un total en ese período de 2.000

horas. También los Boeing 737 hicieron unas 300 horas de vuelo yendo y viniendo a las islas.

Antes del desembarco en San Carlos, la técnica de los buques ingleses era aproximarse a la costa y bombardear intensivamente retirándose con posterioridad. Durante estos bombardeos navales se logró un alto grado de desconcierto entre la infantería argentina, así como bajas. Los medios argentinos para repeler este tipo de ataque fueron variados, pero incluso se llegó a desarmar un misil Exocet superficie-superficie de una de las fragatas argentinas, llevarlo en un Hércules a la isla y desde allí en una forma bastante rudimentaria, dispararlo en forma efectiva hacia el Glamorgan el 12 de junio, ocasionándole daños no substanciales.

Las fuerzas argentinas se muestran muy conformes con los cañones de 35 mm. accionados conjuntamente con radares. Uno de esos equipos fue destruido por un misil buscaradares, que los argentinos atribuyen haber sido un misil americano del tipo Shrike y se preguntan porque los ingleses no utilizaron más de esos misiles. Toda esta información no está confirmada.

Al momento de esta conferencia no nos ha llegado información precisa con respecto a las bajas y lo único que pudimos desglosar son bajas supuestamente atribuibles a la Aeronáutica, las cuales estarían compuestas por 36 oficiales, 40 suboficiales y 5 soldados. Asimismo con respecto a las pérdidas de material aéreo no hay ningún tipo de confirmación, salvo que realmente se hubiesen perdido unos 34 Mirage argentinos. Por otro lado contamos con una información sobre la pérdida del 41% de la aviación argentina. Se ha confirmado que Argentina no perdió en combate ninguno de los Super Etendard; en un principio las fuerzas inglesas creían que uno de los Super Etendard que atacó el Sheffield probablemente no había llegado a tierra por problemas de combustible; esta versión queda por lo tanto desmentida.

Se menciona por otro lado y como anécdota que en una de las misiones de los Camberra orientada a ubicar al Invincible o al Hermes, uno

de los Camberra pudo enviar un mensaje radial a tierra informando que había encontrado algo grande y que se preparaba a atacar, sin embargo la comunicación se cortó ya que el Camberra fue impactado por un misil y el piloto falleció. El señor COPLEY atribuye esta anécdota a la posibilidad por la cual Argentina insiste en haber concretado un ataque sobre el Invincible o el Hermes.

Se confirma la incapacidad de la aviación argentina para volar con tiempo malo y es de mencionar que desde mayo 1 hasta el 14 de junio hubo una mayoría de días de malas condiciones atmosféricas. De tiempo muy malo, por lo menos 14 días, tiempo marginal a malo unos 6 días más, con lo cual hace que un importante porcentaje de los días en los que la fuerza aérea argentina se vió impedida de operar. La Aviación Naval realizó un ataque bastante complejo sobre el Atlantic Conveyor ya que hizo una ruta de desvío importante de forma tal de llegar a la Fuerza de Tareas desde sus espaldas. El interés primordial era que los argentinos pensaban que había una gruesa reserva de Sea Harriers a bordo del Atlantic Conveyor, lo cual se demostró luego que no era cierto. Asimismo los argentinos insisten en un supuesto ataque sobre el Invincible a cargo de un Super Etendard y 4 Skyhawk de apoyo, los cuales supuestamente lograron que el Super Etendard disparara su misil sobre un blanco importante, pero no hubo confirmación del impacto, si bien dos pilotos por lo menos manifiestan que pudieron acercarse y ver como un portaaviones humeaba sustancialmente y además por lo menos uno de ellos pudo arrojar su carga de bombas.

El piloto del Super Etendard manifiesta que hizo el disparo desde tan lejos que es probable que el Exocet hubiese llegado al blanco prácticamente sin combustible.

Los argentinos estiman las bajas inglesas en aproximadamente 12 a 14 aviones ya sea del tipo Harrier o Sea Harrier. La Fuerza Aérea manifiesta que mediante el uso del único radar disponible en tierra se seguian los esquemas de vuelo de los Sea Harrier de forma tal de llegar a intuir cual sería su próxima misión, para estar

entonces preparados para atacar eficientemente. También mediante el análisis de los vuelos consecutivos, las fuerzas aéreas argentinas estuvieron en condiciones de determinar los puntos de partida o sea la presencia y ubicación de los portaaviones.
El disertante manifiesta que preguntó en reiteradas oportunidades si las fuerzas aéreas argentinas habían recibido información satelitaria ya sea de Rusia o de Cuba, sobre todo teniendo en cuenta que días antes del conflicto, Rusia había colocado satélites sobre el Teatro de Operaciones; las respuestas recibidas fueron consistentes y terminantes en el sentido de que no se recibió ningún tipo de colaboración y con total certeza que la Fuerza Aérea Argentina no recibió ese tipo de colaboración y entendían que los rusos estaban representando su show dando indicios exteriores como si estuvieran dando ese tipo de información, cuando realmente no lo estaban haciendo.
La Fuerza Aérea manifiesta que planeó 505 salidas de combate durante 45 días de conflicto; de esas 505 realmente salieron 445 veces y de esas, solamente 302 pudieron llegar a su objetivo. En cuanto a misiones totales de todo tipo, inclusive de rescate, intercepción y demás, los argentinos declaran que han planeado un total de 2.780 salidas.
La información argentina con respecto a las bajas de los navíos ingleses coincide bastante con la información inglesa; los argentinos mencionan 6 barcos hundidos, 10 barcos seriamente dañados y aproximadamente otros 7 con daños no confirmados. Se ha comentado mucho que las bombas argentinas no explotaban por desperfectos en sus espoletas o por exceso de permanencia en depósito. La Fuerza Aérea Argentina reconoce que conocían este problema y que sus técnicos solamente pudieron solucionarlo aproximadamente en la época del desembarco de los ingleses en BLUFF COVE, lo cual ocurrió casi al final del conflicto.
Cruzando informaciones de diferentes lugares se puede constatar que efectivamente las bombas argentinas llegaron en algunos casos

a impactar sobre navíos, deslizarse, caer sobre el agua e inclusive una de ellas posteriormente, dado que el navío se encontraba cerca de la costa, impactó sobre un contenedor de munición inglesa el cual explotó causando la muerte a dos soldados ingleses.

NOTA: En charlas de pasillo se pudo obtener la siguiente confidencia por parte de Sir Patrick WALL, miembro del Parlamento, quien expresó que en el caso de haber explotado todas las bombas que impactaron sobre navíos sin hacerlo, se hubiesen hundido por lo menos 6 barcos ingleses más, lo cual hubiese significado un cambio importante en la estrategia, aunque, a su criterio, no así en la decisión de recuperar a cualquier costo las Islas Malvinas. Dentro de esos 6 barcos, hubiese estado sin ninguna duda la Plymouth que recibió 4 bombas que fueron desactivadas en su totalidad por personal inglés.

Otro comentario que realizaron los pilotos argentinos es que las naves inglesas cuando eran atacadas por una escuadrilla de aviones argentinos, aparentemente luego de la pasada del primer avión argentino, tenían unos segundos de indefensión, o sea que aparentemente las naves inglesas se encontraban indefensas en su fuego antiaéreo por unos pocos segundos luego de la pasada del primer avión, facilitando enormemente la entrada del segundo avión de la escuadrilla.

Los pilotos argentinos eran conocedores de este detalle y lo aprovecharon.

En las diversas entrevistas mantenidas con pilotos de la Fuerza Aérea dió la sensación que tenían un criterio bastante equilibrado con respecto a lo que sucedió, inclusive teniendo en cuenta y aceptando sus propios errores. Sin embargo no era ese el mismo juicio que esta gente tenía con respecto a las otras fuerzas armadas argentinas. Da la sensación que la Fuerza Aérea mantiene la idea de haberse comportado correctamente dentro de sus errores y limitaciones de material y que esto no sería aplicable a las otras dos fuerzas. Por otro lado, los oficiales de la Fuerza Aérea Argentina tenían la sensación de que Inglaterra había sido ayudada ampliamen

te por Estados Unidos, mientras que Argentina había sido privada de posibilidades económicas para renovarse tecnológicamente en los últimos años.

Es evidente que el radar principal que quedó en las Islas Malvinas sigue en uso hoy en día por parte de los ingleses. Consultada a este respecto la gente de la Fuerza Aérea Argentina, menciona que el radar había sido preparado para que se autodestruyese al intentar ser encendido por la tropa enemiga; sin embargo admiten que quizás los ingleses fueron lo suficientemente inteligentes para tomar precauciones y desarmar y revisar el equipo antes de encenderlo, por lo tanto admiten que es posible que ahora ese radar se encuentre todavía en uso por parte de los ingleses.

INCIDENTE SUCEDIDO DURANTE LA CONFERENCIA

Durante el transcurso de la conferencia se produjo el siguiente incidente promovido por un representante de la Marina de Nigeria. Este marino, relativamente joven, con excesiva vehemencia además de un inglés no muy perfecto, realiza el siguiente comentario:

- Es indignante haber escuchado durante toda esta conferencia una sobreventa de todos los puntos de vista ingleses, así como una certeza total de que la guerra está ganada. Yo me pregunto hasta que punto la guerra está ganada, si recordamos todos aquellos lugares donde Inglaterra había ganado la guerra, en Sudáfrica con los Boers, en la India, y luego las cosas sucedieron exactamente al revés. Por otro lado se dice que los únicos que aprenden las lecciones en una guerra son los derrotados y no los vencedores.

Este incidente se produjo al intercambiarse preguntas y respuestas de este marino de Nigeria con Sir PATRICK WALL. La contestación del miembro del Parlamento WALL fué muy terminante en el sentido de que falta muchísimo todavía para ni siquiera ponerse a pensar en la posibilidad que Inglaterra pueda conversar seriamente el tema Malvinas con los argentinos. El incidente creció ya que el representante de la Marina de Nigeria indicó que eso era una bravuconada por parte de los ingleses. La contestación de WALL subió de tono en el sentido de que no estaba haciendo un bluff, sino simplemente indicando el sentir de la mayoría del gobierno y del pueblo inglés.

El señor COPLEY terció en el incidente para tratar de suavizarlo indicando que desde su punto de vista es innegable que el conflicto de las Malvinas ha demostrado que en lo que se refiere a la Antártida y los Océanos que rodean al casquete polar antártico, serán en el futuro apetecidos por todo tipo de naciones y que esas apetencias se canalizarán por medios diplomáticos o por medios militares.

El marino de NIGERIA hace referencia de que toda la conferencia le parece falsa si no existe el punto de vista argentino presente en la misma.

El incidente prosigue cuando alguien menciona que no se podría nego - ciar en el Atlántico Sur hasta tanto no existan gobiernos legítimos. Este término gobierno legítimo fué motivo de risa para prácticamente todas las delegaciones, digamos de países no industrializados. Un representante de ellos menciona "a que le llaman ustedes gobiernos le - gítimos".

Por supuesto esto trajo una rectificación de la persona que hablaba i indicando que "gobiernos legítimos no son necesariamente aquellos que se consagran mediante elecciones, pero que de todos modos si se amplía la definición de legítimo, la misma es muy difícil de realizar".

El significado de este incidente es que muchos de los presentes quizás no se animaron a exponer su punto de vista con la claridad que lo hizo el representante de Nigeria.

Durante la conferencia existía una especie de respeto hacia Inglate - rra pero por otro lado un profundo descreimiento y en cierta forma antipatía oculta hacia los ingleses. Esta antipatía no sólo se da entre los representantes de naciones menos industrializadas, sino que se da entre los representantes de otros países de la Comunidad Europea.

Comprendemos que esta antipatía de representantes de la Comunidad Europea puede estar basada en problemas de competencia comercial, ya que muchos de ellos eran también representantes de fábricas de armamentos. Sin embargo entendemos que durante la conferencia hubo una especie de ánimo en contra de Inglaterra, ya sea por recelo con respecto a la información que se proporcionó, ya sea por desconfianza con respecto a la total veracidad de lo expresado. Sin embargo realizando entrevistas de pasillos para explotar más esta posibilidad detectamos que el grado de credibilidad con respecto a los datos dados, se puede prácticamente cuantificar en mas-menos 30%, según los casos.

Esto es de que no se creen por ejemplo, datos de bajas inglesas, pero no se piensa que el error o engaño pudo haber sido del cien por ciento sino que del 30% mas-menos. O sea que las bajas inglesas pueden haber sido de un 30% más y por otro lado los datos de abatimientos de equipos o tropa argentina pudo haber sido un 30% menos. En función de esto, todos los datos en esta conferencia deberían tenerse en cuenta con un grado de error mas-menos 30%.